Fruit Culture in Western New York.

FRUIT is rapidly becoming one of the staple productions of Western New York. Both climate and soil have proved highly favorable to its cultivation. Apples, Pears, Peaches, Plums, Quinces, and all the small fruits, are produced in the highest perfection, and, if we except Peaches, which of late have been somewhat uncertain, the crops very seldom fail. Beside, there exists the most ample facilities for marketing that could possibly be desired. The face of the country is divided and subdivided in all directions with railroads and canals, between the lakes and the great cities on the sea-board. This consideration is one of no trifling importance, because the abundance of our crops or the excellence of our fruits would avail but little, for commerce, without adequate means of conveying them to market. On this account, large orchards were formerly confined to the neighborhood of towns and villages offering a local market. Now local markets are held to be of very little account by extensive growers. The most extensive orchardists in the vicinity of Rochester seldom dispose of any considerable portion of their fruits in that city, the local demand being supplied by those who have but small quantities to spare over and above the wants of their families.

Another reason why fruit-culture is extending rapidly in Western New York, is that the *Wheat* crop—the great farm staple of this region—has for some years past been diminishing in value, on account of the extensive ravages of the Weevil. Hundreds, yes, thousands of acres of land in the valley of the Genesee, which has heretofore yielded the far-famed *Genesee Wheat*, the finest in the world, will this year be cropped with *Rye*.

To these causes we must add the rivalry of the Western States in grain-growing, now that railroads have brought them into such close proximity. The difference at this day in the price of a bushel of wheat between Buffalo and the upper lake ports, is greatly reduced from its former standard; and this reduction is all in favor of the western farmer. This very fact is attracting a large number of our most enterprising New York cultivators to the cheap, unexhausted lands of the new States; and thus our agricultural population is actually diminishing.

On all these accounts, the necessity of making some change has become obvious to many of the New York agriculturists, and what can better answer their purpose than fruit-culture? We answer, *nothing*, and for the reasons we have already given, to wit, the fitness of their soil and climate, and their highly eligible position. All that is necessary to complete success, is the exercise of energy and perseverance, combined with skillful and judicious management. We offered some hints in our last number, which we think may be profitably read in this connection.

Famous as the "Genesee country" is for its fruit production, yet in this very country much has yet to be learned, not only respecting the culture of fruits, but their gathering,

packing, marketing, and the great arts of keeping, drying, and preserving. The demand for fruits may, if necessary, be increased almost an hundred-fold, by the application of science and art in perfecting modes of preparing fruits for the use of our fleets of passenger and merchant vessels, for export to distant countries, and for the use of our population, both in city and country, during the long winter months, when, as at present, no fresh fruit is to be had, save an Apple. We had a letter from a friend of ours, the other day, on this subject, stating that he had endeavored to enlist our State Agricultural Society in this matter, and induce it to encourage some experiments. The matter is important enough to claim the Society's attention, but we have sufficient faith in the energy and ingenuity of our people, to believe that as soon as fruits become abundant, or rather superabundant, and cease to command such high prices in the fresh state as they now do, that successful modes of preserving, drying, &c., on a large scale, will not long be wanting. "Necessity is the mother of invention;" and when the necessity presses, the invention will speedily follow.

A society has just been organized, under the title of "The Fruit Growers' Society of Western New York," which announces its object to be, "the advancement of the science of pomology and the art of fruit-culture." It embraces the twenty-three western counties* of the State of New York, and in each county there is appointed a committee of three persons, selected from among the most intelligent, experienced, and zealous cultivators of fruit. These twenty-three county committees unitedly form one general committee, which has a chairman, who will receive all their reports, and prepare them for publication at the end of the year. By way of suggesting a course of inquiry to the local committees, and also for the purpose of facilitating the work of making up reports, the chairman of the general committee has issued a circular in which the more important subjects for inquiry are brought forward in the form of questions, thus:

STATISTICAL INQUIRIES.

1. About how much land, in your county, is there occupied with fruit trees?
2. About how many fruit trees are there under cultivation in your county, exclusive of nurseries; and how many of these are Apple, Pear, Peach, Plum, Cherry, &c.?
3. What would you estimate the annual produce of fruit to be in your county, in bushels or other given quantities; and how does the culture of fruits compare with ordinary field crops, as to profit?
4. What quantity of fruits are sold annually from your county, and their value per bushel, barrel, &c.?
5. How many nurseries of fruit trees are there in your county; how many acres of land do they occupy; and about how many trees of the different fruits have they under cultivation? [It may also be well to add, when convenient, particulars relative to the value of the land, labor employed, &c.]

INQUIRIES CONCERNING SOIL, CLIMATE, CULTIVATION, VARIETIES OF FRUIT, &c.

1. Face of the Country.—Is it low or elevated, level or hilly, wooded or otherwise; and what situation and exposure do you find most favorable for orchards and fruit gardens? Have you observed any instances where shelter has been of very obvious advantage?

* Oswego, Onondaga, Cortland, Broome, Cayuga, Tompkins, Tioga, Chemung, Seneca, Wayne, Ontario, Yates, Steuben, Monroe, Livingston, Allegany, Orleans, Genesee, Wyoming, Niagara, Erie, Cattaraugus, Chautauque.

2. The Soil.—What is its general character—such as texture, color, depth, dryness, subsoil, &c.; and what kind of soil do you find to produce the largest, soundest, and most productive trees, and the fairest fruit?

3. Climate.—What is the average temperature of the different seasons of the year; the greatest degree of cold usually experienced in winter, and its length of continuance; how late have you frosts in spring, and how early in autumn, &c., &c.?

4. General state of Cultivation.—In what proportion are the various fruits grown, and what degree of attention is given to the tillage of the soil, and to the pruning and general management of trees? What mode of culture and pruning have you practiced, or seen practiced, to the best advantage; and what the best manures or composts and modes of applying them to fruit trees, under various circumstances?

5. Do you know any fruits of local origin. and remarkable excellence, or any good seedling varieties not named or introduced? [Specimens of all such should be sent to the General Chairman, for examination.]

6. Varieties of the different Fruits under Cultivation.—Which, according to the experience of cultivators, are the most profitable for market, for feeding stock, drying, &c.; and the most esteemed for family uses in various ways, as dessert, baking, stewing, &c.?

7. Particular Instances of successful and profitable Culture.—[Give an account of such, with any particulars having an important bearing upon them.]

8. Have you observed any signal failures, either in transplanting trees or in budding, grafting, &c.; or any disasters befall orchards and nurseries, from unusual cold, drouth, or other extraordinary causes? [Give an account of such, with any circumstances that may afford an explanation. The effects of the intense cold of the past winter will be very interesting, and should be carefully observed and noted.]

9. Insects injurious to Fruits and Fruit Trees.—Note their habits, modes of attack, and progress, and give an account of any successful remedies. [Specimens of all, except such as are very common and well known, should be collected and sent to the General Chairman. It may be useful to note under what circumstances of cultivation, &c., insects are generally most injurious to fruit trees.]

10. Diseases.—What diseases are prevalent and injurious to fruit trees in your district? [Give an account of the nature and extent of injuries, and what remedies, if any, applied.]

It is also required, or recommended in the Society's By-Laws, that each county committee shall report, as often as once a month, such information as may have been collected during that period. These monthly reports have been recommended on the ground that when the preparation of a report is postponed to the end of the year, it is either done hurriedly and loosely, or it is not done at all; whereas a few notes made during a month can be written out in a few minutes, and, being fresh in the memory, will be much more likely to be correct. This plan strikes us favorably, and is at least worthy a trial. One thing it will do for those who put it in practice, and that is, it will give them, what is of great value, a habit of observing matters of interest closely, and of putting on record useful and interesting facts concerning their daily affairs. How negligent the mass of mankind are in this respect!

In addition to the minute practical investigations of this general committee, the Society intends to hold annual or semi-annual meetings, for the exhibition, examination, and comparison of fruits; to hear reports; and discuss such matters as may at the time be deemed of most importance. These meetings are to be held alternately in all the large towns, lying at accessible points, within the twenty-three counties.

This is obviously an organization which must, if it act with any considerable degree

of efficiency, contribute largely and speedily to the advancement of both the science and practice of fruit-culture. It will collect valuable information which now exists in a scattered condition, and make it useful and available to all. It will bring different and distant parts of the State, now strangers, into closer relationship, and make them acquainted with each other's condition and resources, in regard to this pursuit at least. It is really surprising to see how little the fruit-growers of one county know of another, even here in Western New York. Very many of us know more about Ohio, Michigan, or Illinois, than we do of some counties of our own State. Such societies as that we now give an account of will remedy this evil. In these days of societies we must not bestow all our attention on those of a State or National character because they make a greater noise in the world, and command more attention. Charity should begin at home; and if we have any public spirit, any desire to be useful in this way, let our home districts be the *first* to benefit by it.

What the fruit-growers of Western New York have done, and are about to do, will, we trust, be done by those of Central and Eastern New York as well, and also by similar sections of other States. We have not bestowed so much attention on this movement in Western New York, and given it such prominence, merely for its own sake; for this section has no greater claim on the pages of the *Horticulturist* than any other —and for ought we know, not nearly so great as many others. Our aim is three-fold: First, To draw the attention of cultivators in different parts of the country to a proper consideration of their soil, climate, markets, and such other circumstances as affect the cultivation of fruit, in order that they may determine to what extent it can be advantageously pursued. Many parts of the country, both east and west, may be situated very much the same as Western New York. Second, To introduce the young society to favorable notice, and thus aid it in carrying out its good work. Third, To explain the details of its working plan, which we consider to be a very good one. Other societies of a similar nature may get some hints from it, not unworthy their attention. Under the head of "Societies," will be found complete lists of officers and committees, as far as completed up to this time.

THE DOUBLE CRIMSON-FLOWERING PEACH AND DOUBLE WHITE-FLOWERING ALMOND.*

The double-blossomed varieties of fruit trees furnish a small collection of the most beautiful spring-flowering trees and shrubs which we have in cultivation. The old double variety of the Peach and Almond are well known. Their flowers are borne in such profusion that the branches have the appearance of wreaths of small Roses. No other trees contribute more to the cheerfulness and gaity of the lawn or shrubbery during the spring season. Then we have the Double-flowering Cherries, large and dwarf, with their profusion of snow-white flowers; the Double-flowering Sloe, with flowers like Double White Daisies; the Double-flowering Apple—flowers white, with a rosy tint; the Japan Quince, with deep scarlet flowers, unrivaled in their brilliancy; to which we may add the charming Crimson and Yellow-flowering Currants.

* See frontispiece.

The Double Crimson and Double White Peach, which we now figure, are important additions to this interesting group. They were obtained in China, some five or six years ago, by Mr. FORTUNE, for the London Horticultural Society. Three years ago we obtained some of the first plants that were sent out, at a guinea apiece, and both flowered finely last season, side by side. Our artist then made the drawings now presented. They appear to be about as hardy as our common Peach, and have the same habit and appearance. Their great value consists in the novelty of their colors—*pure white* and *deep crimson*—quite distinct from the pale rose or peach-blossom of the old sorts. Flowering side by side, they produce a fine effect, and commend themselves to a place in all ornamental plantations where the climate is not unfavorable to the blossoming of the Peach. Where the Peach blossoms are generally killed, they will of course be of no value, unless protected. The flowers of both are semi-double—that is, they have several rows of petals, and show some stamens in the center.

It has been noted as a remarkable fact, in England, that the Crimson Peach has produced two, and in some cases three, fruits from one flower—a circumstance that never occurs in other Peaches. Our trees set no fruit last season, nor will they the coming one, as the blossom-buds, in common with all Peach blossom-buds, were killed by the intense cold of last February.

It is scarcely necessary to add, that these new varieties are propagated by budding on the Peach, Almond, or Plum stocks, just as other Peaches, and require the same soil and treatment.

EVERGREEN SHRUBS.

BY HENRY W. SARGENT, WODENETHE, FISHKILL LANDING, N. Y.

IN Mr. MUNN'S article upon "Evergreen Shrubs," in the March number of the *Horticulturist*, he admits the eligibility of the various hybrid Rhododendrons for the adornment of our gardens and pleasure-grounds, while he regrets that the price, and comparatively slow rate at which they can be propagated, will forbid their rapid introduction, except for purposes of experiment. With all due courtesy to Mr. MUNN'S experience, I must beg leave to differ from him in this respect. I am aware that, from what I consider a most mistaken policy, the nurserymen in this country hold them at prices which would forbid a general introduction, but they can be imported from England at exceedingly low rates.

I have, during the past six years, tested all the varieties of Rhododendrons which are classed "Hardy" in England, and I have come to this conclusion, that in my locality, half-way between New York and Albany, none do so universally well as the *Catawbiense* and its varieties, including the Belgic hybrids. Next to this is the *ponticum*. This latter variety can be delivered on board ship or steamer, at Liverpool, at the following prices: One foot high, 15*s* per 100, or £5 per 1,000; two to two and a half feet high, 25*s* to 30*s* per 100, or £12 per 1,000; large, bushy plants, three to five feet high, 1*s* to 3*s* 6*d* each. Surely, twenty-five dollars for one thousand Rhododendrons is not exhorbitant. The freight per sailing vessel is very low, and they transplant with such certainty that the loss with me I don't believe averages one per cent. Many

will bloom the season of importation. I had in flower, last June, twenty varieties of color among one hundred plants that were growing on English soil, near London, the 2d of May. These one hundred plants went through last summer's drouth and this winter's cold, without any protection, unscorched and uninjured, though the thermometer here fell to 14° below zero.

But by far the most desirable variety for this latitude, is the *Hybrid Catawbiense*, the names and colors of which I annex.* One hundred blooming plants, in twenty-eight varieties of color, can be imported for £10 ($50), the majority with buds, and averaging two feet in height. There is nothing finer in England than a large bed of these twenty-eight varieties of color all in bloom. They are free-growing and free-blooming, having a good foliage, and withstanding our severest cold in the most exposed situation.

If nurserymen would only import these varieties in quantities, and sell them at twenty-five, fifty, or one hundred per cent. profit, instead of three hundred or more, I am satisfied that their general introduction would take place. Or, if gentlemen would simply write to England, and import them direct, as the stubborness of our nurserymen has compelled me to do for many years, they would find very little trouble and very great gratification. A complete set of Dr. HOOKER's Sikkim Rhododendrons, eighteen, I think, can be imported for £3 ($15), though in Mr. PRINCE's catalogue they are priced $5 apiece.

I agree with Mr. MUNN in his prediliction for the Mahonia, though with me it is very ragged and shabby all winter; but I would decidedly place our *Kalmia latifolia* before it, especially when imported from England. It would be difficult to recognize the English and American plant side by side, though grown from the same seed. Instead of the loose, straggling growth of our Laurel, the English cultivation renders it close, stocky, and full, so that the wood is entirely covered by foliage. Bushy plants, two feet high, can be imported at £3 per 100, and they rarely fail.

For Mr. MUNN's Euonymus, which with me resembles whitey-brown paper by February, I would substitute the *Ilex laurifolia*, which, with a broad leaf, between the Camellia and English Laurel, appears as hardy as an Arbor Vitæ. For two winters I have had six plants, facing due south, with no protection, and they have gone through untouched. The fault, perhaps, of the plant is, that it resembles too much our Kalmia to make much distinction in plantations, though the foliage is darker. The *Ilex latifolia* is still more beautiful, but not so hardy; it gets more or less cut up, without protection,—not more so, however, than the Mahonia. There is a variety of Euonymus

* *Catawbiense.*
Elegans—white, green spots.
Album.
Grandiflorum—blush, changing to white.
Aucubafolium.
Aureum—a distinct and beautiful color.
Bicolor—rose, with distinct white spot on upper petals.
Calestinum—blush.
Pictum—yellow eye.
Grandiflorum.
Cœrulescens.
Candidissimum.
Delicatissimum—delicate blush, changing to white.
Everestianum—lilac, prettily spotted and fringed.
Flore pleno—very good for a double flower.
Fimbriatum.
Glorioeum—large, blush.
Grandiflorum—rose, superb.
Purpureum elegans—fine purple.
Perspicuum—clear blush.
Pallidum.
Roseum elegans.
Pictum—rose, with yellow eye.
Rubrum.
Splendens—fine rose.
Speciosum.
Guttatum—clear white, distinctly spotted.
Nivaticum—pure white, yellow eye.

which Mr. MUNN has not mentioned, quite hardy around Baltimore, though hardly so here—the *Euonymus fimbriata*—which I consider the prettiest of the family.

The Andromedas, at least the *floribunda*, stand the winter well with me, but suffer exceedingly from the sudden appearance of the sun out of a fog in mid-summer. They endure the cold, I think, better than the heat. If planted in the shade, they would probably do very well.

The Golden Arbor Vitæ, the Golden Yew, the *Thuya filiformis* (Weeping Arbor Vitæ), and the *Cupressus pendula*, are all charming additions to our evergreen gardens.

The *Ilex opaca* can, or could two years since, be procured from Mr. BUIST, at Philadelphia, or Mr. FEAST, at Baltimore,—nice plants, raised from seed.

Mr. MUNN speaks of the protection of snow. I observe that at the Royal Gardens at Kew, during the late remarkable weather in England, there was a difference of *nineteen* degrees immediately above and immediately below the snow.

One reason for the want of success in cultivating Rhododendrons, and other evergreen shrubs, is perhaps a want of knowledge of the sort and character of soil necessary to their success. Most persons are apt to manure them with coarse and stimulating manures, entirely unsuited to their habits and requisitions. Another fault is, the use of too coarse soil, which does not readily attach itself to the delicate, hair-like roots and fibres of this class of plants.

To cultivate Rhododendrons successfully, several things are necessary. In the first place, a shady or partially shady situation is most desirable, though not essential. My finest beds are most exposed to the sun. Could I have placed these on the north side of a building or a wood, their success would have been much greater, their bloom finer and more prolonged, and they would entirely escape the occasionally singeing they get now.

The next important thing is the preparation of the bed to receive the plants; for, with occasional exceptions of single specimens of fine plants, all evergreen shrubs should be in large masses—oval or circular beds, twenty to fifty feet in diameter. I think the soil should be as carefully prepared as in a Grape-border, and I would therefore recommend an excavation three feet deep, and all the native soil, unless very fine, removed. The lower eighteen inches I should fill with an equal mixture of light, turfy, sandy loam, of a very fine, close texture; leaf-mold from the woods; white sand, if obtainable; and fibrous peat or bog soil that has been exposed to the influence of at least one winter's frost—if more, so much the better. With this soil, closely packed around their roots, an occasional watering in dry weather, (though even this I do not do,) and if possible a shaded situation, all the plants mentioned above will succeed admirably well in this country.

[We thank Mr. SARGENT heartily for his excellent article, and trust it will give an impetus to the culture of those fine evergreen shrubs which he has recommended. We are inclined to believe, however, that the nurserymen are not wholly to blame for the very limited cultivation of the Rhododendron. We think it is more owing to the fact that a very large proportion of those who have planted Rhododendrons, failed because they did not give them that treatment which the nature of the plant and the peculiarities of our climate demand. Very few gentlemen in this country can show

such healthy and beautiful masses of Rhododendrons on their lawns as we find at Wodenethe. It has been considered a difficult plant to manage, and therefore very few have been called for. Nurserymen get orders occasionally for *one*, *two*, and, in very rare cases, *a dozen;* but who orders one hundred Rhododendrons for his own planting? For twenty years, *almost*, we have been connected with nursery affairs, more or less, and we venture to say that not three nurserymen in the United States have made a *six-pence* of clear profit out of the article Rhododendron. They import a few hundred at a time, losing some on the voyage out, plant them, spend considerable money in preparing a border for them, cultivate and take care of them, and sell off those that live in ones, twos, threes, &c., at scarcely profit enough to pay for handling. We have not the least doubt but that any gentleman who wishes to procure one or two hundred, or more, of Rhododendrons, and is willing to take freshly imported plants, that any of the nurserymen who are in the habit of importing will procure them for him at as low a profit as five or ten per cent. above cost, provided he [the purchaser] will run the risk of loss on the voyage.

We have before us an American nurseryman's catalogue, in which *Catawbiense* and *ponticum* varieties are offered at four dollars per dozen; and another offers them at three dollars per dozen. These prices are for well-established plants, because nurserymen do not send out freshly-imported stuff, unless by a special agreement. We do not consider these extravagant prices; indeed, very little higher than the retail or dozen price for similar plants in English nurseries.—Ed.]

RAISING NEW VARIETIES OF PEARS FROM SEED.

BY THOS. RIVERS, SAWBRIDGEWORTH, ENGLAND.

This branch of fruit-culture is so full of interest, so worthy the attention of all pomologists, and above all has been so strangely neglected of late years—indeed, since the early life of the late T. A. Knight, no attempts to raise seedling Pears have been heard of—that a few words about it may be acceptable.

For some twenty years or more I have occasionally raised Pears from seeds, and must confess that my success has been nothing to boast of; but latterly I have in a measure changed my mode of operations, so as to make the raising of seedling Pears far more interesting than merely sowing the pips of a good Pear, without name, grafting the young shoots from the seedlings, and waiting till they bear fruit. My method is, I flatter myself, adapted to your climate; for seedling Pears are very apt to be pulled up by birds, the pips destroyed by mice, and, in a showery and cold April, to be eaten by slugs and snails.

As soon as the Pear-eating season commences, I have some two or three dozen nine-inch pots filled with a compost of loam and rotten manure—say two-thirds of the former to one-third of the latter. Some sand added will improve it. These pots are then placed on bricks or tiles, to keep out the worms, in some convenient situation (away from hedges, as they harbor slugs,) near the house, and in each pot is a smooth slip of lath painted ready to be written on. I will assume it to be October; I am eating

a fine specimen of the *Louise Bonne* Pear; the pips are plump and brown; I take them from the core, go to one of the pots of earth, and with my finger and thumb carefully press in the pips, one at a time, to about an inch deep, and level the surface with my hand; I then write on the label, say, "*Louise Bonne* Pear, October, 1855;" a piece of slate or tile is then placed on the pot so as to completely cover it, and prevent the ingress of mice. A few days after this I may be again eating a *Louise Bonne* Pear; I reserve the pips, remove the covering from the pots, and plant them with the others; and so repeat this till some fifteen pips are planted, which will raise quite enough trees from one variety. Again, it is February; I am at my dessert; a delicious *Josephine de Malines* Pear gives me some fine pips; I place them in paper (my pots of earth are frozen), write the name on it, and have a pot of earth taken to the green-house, or, in default of such a structure, to the kitchen, plant the pips as above, write on the label, "*Josephine de Malines* Pear, February, 1855;" then cover the pot as directed, and place it out of doors, covering it with mulch. I omitted to say that at the end of November all the pots, with their covers, should be covered with mulch one foot deep. The young plants from the pips sown in the autumn will make their appearance early in April, if the weather be mild; the pips sown in February or March will not vegetate till April or May; the pips sown in May will probably remain dormant till the following April.

There are two methods of managing young Pear seedlings. The most simple, and one well adapted for those whose hands are full of gardening matters, is merely to let the pots stand on the bricks or tiles, removing them to a shady place, all the summer giving them abundance of water. Each young tree will, or ought to be, twelve to eighteen inches in height by the end of summer, and its stem as thick as a quill, and well ripened. About the end of October these seedlings may be planted out in the garden, in rows three feet apart, and eighteen inches apart in the rows, with labels to each sort; and in the following April, if there is a wish to bring them rapidly into bearing, each young seedling tree may be cut down to within two inches of its base, and one or two scions made from it (one ought to be enough, and that made from the lower part of the shoot). These should be grafted upon some stout stocks, or upon branches of a bearing tree. An excellent plan is, to buy at a nursery old dwarf Pear trees at a cheap rate, without names, to plant them out one year, and then to graft them with seedlings, cutting them to a stump nine or ten inches in height. They will soon make nice pyramidal trees, and, by being removed biennially, will come into bearing quickly, and not occupy much room. Every sort should be labelled with its origin in this way: "From *Marie Louise*, Nov., 1854," and so on. This gives much interest to the culture of seedling Pears; for, while waiting some six or seven years, till they bear fruit, their habits will be found very interesting. In most instances, a strong family likeness to their parent may be distinguished in the leaves and shoots of the young trees, varied by now and then a puny, weakly young one, which will canker and die in three or four years, and then by some one or two trees in ten showing a wide departure from the parental stock, making vigorous, thorny shoots, and growing as much in one year as other members of the family in three. Contrary to the views of "parent, pastors, and masters," in general, it is these renegades that give the liveliest hopes to the raiser of Pears. I have at this moment several rows of seedling Pears, five years from the graft. They were grafted on old dwarf Pear trees, and have been

lifted and replanted twice. This has checked them so that they are now in a bearing state. They are all labelled with their origin, and I have made the following remarks. Among some fifteen or twenty trees labelled "From *Ne Plus Meuris*," all remarkable for their resemblance to their parent, are two of extra vigor. Among the same number from *Beurré d'Aremberg*, are three thorny, vigorous subjects. And this goes on in the same proportion with *Bergamotte d'Esperen*, *Josephine de Malines*, *Fondante de Noel*, and other new kinds of Pears.

Thus far I have given the most simple method of raising seedlings by sowing in pots and not transplanting till autumn. Another method is, to place the pots in a gentle forcing-house either in January or February. The young plants soon make their appearance, and when they have made four leaves in addition to the seed-leaves, they should be raised carefully, with all their fibres, and potted into three-inch pots. As soon as these are full of roots, they should be shifted into larger pots, and kept growing under glass till the beginning of June. They may then be planted out in light, rich soil; and the probability is, they will be three feet high by autumn.

It remains to be seen whether a seedling Pear can be brought into an earlier fruit-bearing state by being grown under glass, and gently forced, so as to give it a long season of growth. I commenced the experiment some years ago, but the cares of an active life prevented me carrying it out fully.

The most scientific mode of raising new Pears from seed, is to sow the pips of only such fruits as have had their origin from fertilized blossoms. If T. A. KNIGHT had not taken the old *Swan's Egg* Pear almost constantly into his experiments, so that most of his seedlings have too strong a leaning to it, and had taken such Pears as *Glout Morceau* and *Old Colmar*, or the *Winter Nelis*, with some larger late Pear, and also formed other crosses, with his peculiar tact, we should most probably have had some of the finest Pears in the world. The late T. N. WILLIAMS, of Pitmaston, raised new sorts of Pears with great facility by fertilizing. Some of these partake of the qualities of both their parents in a remarkable degree; but he was not careful enough in selecting varieties to a given end, which ought to be, raising of large, hardy, late-keeping sorts.

We have October and November Pears without end; their names are legion, and serve to create distaste rather than a wish for a collection of Pears. To raise new and fine late Pears, a word or two as to the selection of proper kinds as parents may not be amiss. That fine, large, late Pear, *Leon le Clerc de Laval*, reckoned a baking Pear, but which in May and June becomes soft and agreeable, should be crossed with the *Winter Nelis*, the most delicious of all our winter Pears. The *Easter Beurré*, which, although in France the finest of late Pears, is in England generally flat and poor in flavor, may be crossed with *Beurré d'Aremberg*, always vinous and racy; the *Triomphe de Jodoigne* may be crossed with the *Josephine de Malines;* and so on.

There are two methods by which fertilization may be brought about, in one of which chance is to a certain extent trusted to. This is by training the bearing branches of two Pear trees on a wall, so that the blossoms are mingled, or planting two pyramids of the two kinds of Pears selected in a situation far removed from any others. The certain method is to select a blossoming spur, or rather say a bunch of blossoms, and a day or two before they expand remove all the anthers, cover the blossoms with a fine piece of muslin, and the following day fertilize the flowers with the pollen of the

variety fixed upon to cross with. This is done simply by finding some flowers in full bloom, with the pollen perfect, and placing them on the blossoms under the muslin cover, closing it immediately, and tying it securely, so as to prevent the ingress of bees. To those who have inclination or leisure, this occupation will be found of much interest; and to those who have not, the chance method will be equally so.

The theory and practice of the late VAN MONS, which for so many years has made such a noise on the Continent, has been given in American works on fruits; but I may, I trust, be allowed to repeat it in as few words as possible. He commenced by sowing the seeds of some hardy, inferior Pear, and, as soon as the trees bore fruit, he sowed the pips from them, waiting again till the second generation bore fruit, from the pips of which he raised trees, and so on for several generations. He gave out to the world that by this method he raised all his best Pears, and that those of the last generations were nearly all good. This seems to be in unison with the well-known fact that cultivation brings on amelioration; but his assertion that by thus raising successive generations his last seedlings became so fruitful as to bear some years earlier than the first, or those raised in the ordinary way, was a delusion, brought on, I suppose, by enthusiasm. That some out of his many thousands of seedling Pears would bear fruit some years before others, I have no doubt; but that it resulted from the system, was an error. Let any one of your readers raise seedlings from the old *Swan's Egg* Pear, and at the same time raise some from one of VAN MONS' Pears—say *Prince Albert*, which, as being one of his late generations, ought to give seedlings wonderfully prolific, it will be found that the chances are equal about the seedlings bearing fruit when young. I am inclined to think that those from the *very old* Pear the *Swan's Egg* will bear fruit before the *very new* Pear *Prince Albert*. I am also inclined to think that his system of amelioration by successive generations, although on paper attractive and interesting, was slow and uncertain, for the following reason. Some few years since, I was traveling in Belgium, and paid a visit to the garden of the late Major ESPEREN. I learned that he had no system of raising Pears, but that he sowed seed according to his fancy, and trusted to chance. I was surprised to find that he had raised, in a comparatively small garden, and out of a small number of seedlings, such Pears as *Josephine de Malines*, *Bergamotte d'Esperen*, *Fondante de Noel*, *Fondante de Malines*, and some others. I afterwards saw the vast collection of VAN MONS' thousands of large trees raised from seed after his system, and among them all it may be safely said that there was not one variety to surpass, or even equal, the two first-named varieties raised by chance. To chance also, and not to this much vaunted-of system, we owe such Pears as *Marie Louise*, *Glout Morceau*, *Beurré Rance*, *Beurré d'Aremberg*, and, above all, *Winter Nelis;* so that we may console ourselves with the idea that chance is very liberal, and the system of VAN MONS not so; for, after a whole lifetime devoted to it, it failed to give him five Pears to surpass the above, or one to equal the last-named. I remember feeling assured, when first I heard VAN MONS talk of his theory, that it was not tenable; for, if amelioration was progressive in seedlings raised in successive generations without crossing, and if in like manner fertility was increased by it, the Peach orchards in America would give fruit all perfect in quality, and of wonderful fertility,—for the Peaches in some of the States are raised, generation after generation, from the stones. What wonders the fortieth generations of Peach trees ought to be! They should bear fruit even the first year from seed. Among the hundreds of varieties

of Pears with the name of VAN MONS attached to them, there are some very good, although by far too many are sorts ripening in October or November; but by raising Pears from seed in America, you will have sorts better adapted to your climate, and of equal or even perhaps of better quality than the too numerous varieties from Belgium.

PROFITS OF THE COLD GRAPERY.

BY WILLIAM CHORLTON, OF NEW-BRIGHTON, STATEN ISLAND.

IN the *Horticulturist* of February, 1852, at the request of the late A. J. DOWNING, I gave a practical account of the Cold Grapery at this place which was planted in March, 1850, and, as the question, "will it pay," has often been put to me during the interval of time which has elapsed, I have thought that an estimate based upon the produce and expenses up to the present time, might be of service in your journal. I would here premise that there is nothing extraordinary in the amount of fruit, more than what others are obtaining by skill, care, and attention. The average weight of the respective crops given, if taken collectively, would be one pound per bunch, all of which would have readily sold at from fifty to seventy-five cents per pound; the lowest price, however, is only calculated. The following number of bunches of good quality have been cut in the respective years: 1851, 262 bunches; 1852, 618 bunches; 1853, 918 bunches; 1854, 1147 bunches; making a total of 2945 bunches.

The following calculation, which is as correctly stated as can be, will show the balance side of the question:

2945 lbs., at 50 cts.		$1472 50
Deduct labor, 1st year,	$50 00	
" " 2d "	100 00	
" " 3d "	150 00	
" " 4th "	200 00	
" " 5th "	225 00	
Yearly dressings of manure, at $20,	100 00	
Repairs, painting, &c.,	200 00	—1025 00
		$447 50

By the above example it will be seen that there is $447 above the lowest wholesale market prices, and as the house, border, &c., cost about $2000, it leaves a surplus profit of 4½ per cent. per annum upon invested capital, which, in the present position, looks somewhat low; but it must be understood that, in this case, profit was not the object —everything was done regardless of expense, to make a good and handsome structure. The best French crystal glass was used, and all labor paid by the day; besides which, in the first year, there is no return profit, and the last season is the only one in which a full crop has been allowed. Take into consideration, too, that the labor account for management is reckoned at $2 per day, and it will be readily seen that a good and suitable house may be built and tended so as to give a large return profit. A house of equal dimensions, and well finished, can be erected at $12 per lineal foot, with the

exception of cistern, force-pump, hose, and tank; and if we make an estimate of all incidental expenses on a house equal to the above, and fifty feet long, it will stand thus:

House, 50 feet long, furnished with two coats of paint, at $12,	$600 00
Brick cistern, cemented, 10 feet square,	70 00
Tank, Force-pump, and Hose,	90 00
25 tons of manure for borders, at $2,	50 00
Material for drainage,	20 00
90 bushels of bones, at 50 cts.,	45 00
100 bushels of charcoal, &c.,	15 00
Labor—making borders, &c.,	20 00
48 vines, at 50 cts.,	24 00
	$934 00

As, in the first example, the house is 74 feet long, and, in the latter, 50 feet, the comparative weight of fruit that may be taken will be about two-thirds, or 1964 lbs., at the same prices, making the total value for the five years $982; and making the same comparison in labor, expenses, &c., in both cases, we may put down $298 gain upon a capital of $934, which shows a profit of about six per cent. per annum, and this, too, at the commencement. If we were to calculate upon seven years, the per centage would amount to nine per cent.; and continued further, it would be still greater, as the vines will continue each season to produce a full crop.

From these illustrations it will be readily seen that, with good management, there is no loss in having a Cold Grapery, even though partial failure may occur.

A NEW FACT IN GRAFTING.

BY LYMAN B. LANGWORTHY, GREECE, NEW YORK.

The better process generally for working Cherries and Plums, is to bud or inoculate at the proper season; but it often happens that it is desirable to work trees too old, or the season so dry that the bark will not slip and the budding process cannot be performed, in which case grafting sometimes becomes important.

The grafting of the Cherry is quite an uncertain operation and never succeeds well, except when performed early in the spring, and the scions, which are difficult to keep, are fresh and in good order, the bark is so liable to discolor, and the wood to shrivel, which is absolutely fatal to its vitality. The same trouble applies to the Plum in a less degree. Individuals not nurserymen are apt to neglect cutting their scions in proper time, and are only sensible of the oversight when they observe the objects they wish to alter at the opening of spring, when it is too late.

The new process to which I allude, is a means whereby a scion of any kind may be cut from the tree after the buds are fully expanded, but not opened, and grafted the same minute, and which almost invariably succeeds if properly executed. In this process I prefer the terminal point of a limb for the scion, or any part may be used by cutting the wood close to the upper bud and dipping it twice, with two or three minutes interval, into a vial containing a small quantity of *collodion*, or *artificial cuticle*,

which can be procured of any apothecary. It instantly forms an air-tight coating, both flexible and elastic, and protects it from drying and loosing its vitality.

There is no time of year after the new buds are sufficiently formed, and the stock in a growing state, but what grafting by this process may be performed, in which case have but one bud on the scion, and dip the whole wood, except the wedge, in the *collodion* to protect it from the drying sun and heat of summer. It sometimes happens that one has a single choice exotic, difficult to procure, that it is important not to fail in grafting, and this method almost infallibly ensures success.

[Some time ago we published an account of an experiment in the use of *collodion* in propagating Roses, and some other plants, from cuttings. We have not before heard of its being employed in grafting. The experiment is well worthy of attention.—Ed.]

CULTIVATION OF THE GROUND-NUT, OR PEA-NUT.

BY C.

Thinking that a few hints on the cultivation of the Ground-Nut would not be altogether unacceptable to the readers of the *Horticulturist*, and might be of assistance to those wishing to grow them, I am induced to write this article,—more, however, with the desire that its cultivation may be better known than to give any particular plan for raising it.

The proper time for planting is about the 10th of May, or as soon as all danger of frost is over. It would be better, in northern latitudes, to plant them in boxes or hot-beds, so as to have the advantage of as long a season as possible, since on this the crop greatly depends. The soil should be sandy, or light. A heavy soil should be avoided; for though the Ground-Nut will grow in such, yet, where one has the choice of a sandy soil, to that he should give the preference. They should be planted about two inches deep, in rows, fifteen inches apart—even two feet would not be too far, as the branches grow long. The rows should not be less than three feet apart.

After the vines have made some growth—say six or eight inches—the soil should be hoed over them, leaving an inch or two of the ends exposed. This should be done every two or three weeks, according as the vines may grow, so that but two or three inches of the ends of the vine may be uncovered. On this also the yield depends; for if it is not done, the nuts will not half ripen.

Whether north of the latitude of Philadelphia the Ground-Nut could be cultivated without the aid of a hot-bed, I am unable to say; but I think that they could be successfully grown south of it.

As to the yield, I can not speak to any certainty, but I have seen over thirty to one root. They can be purchased at most of the confectionary stores at six to eight cents per quart.

THE NELUMBIUM.

BY J. L. COMSTOCK, HARTFORD, CONN.

A FEW weeks since, I received from J. B. HAWKES, Esq., of Louisiana, a small package by mail, on opening which, I found a few seeds of a dark color, resembling small acorns, with the following note:

"Understanding that you have an aquarium, I send you a few seeds of the Nelumbium, a plant which is common here, growing in water from a few inches to ten feet in depth. The flower is large, the petals imbricated, and in color like the *Chromatella* Rose. It has a peculiar but very pleasant fragrance. What species of Nelumbium this is, I am not informed."

Of course I was delighted with such a present, and from an entire stranger, too; for I had long desired to obtain this plant, being, of all aquatics, next to the *Victoria regia* in size, species, and country. Of the Nelumbium, only two species are known—the *speciosum* and the *luteum*. The first is found in Egypt, China, Java, Japan, Ceylon, and generally in all the tropical regions of the east. This has a splendid flower, with pink petals. The *luteum*, the American species, has yellow flowers, as above stated.

In hot climates, the leaves of this plant are nearly equal to those of the *Victoria regia* as grown in a cold climate, but in our latitude they seldom exceed two feet in diameter, though in a hot-house they probably might be much enlarged.

This genus belongs to the natural order Nymphæaceæ, or the Pond Lily tribe, and our species resembles the well-known beautiful flower the Water Lily, only being nearly ten times as large. In the Linnæan arrangement, this genus belongs to class Polyandria and order Polygenia. The most northern limit of its growth in New England appears to be the town of Lyme, Conn., where there are several localities of it, not far from Connecticut river; but why that ancient, aristocratic town, should be honored with the growth of this magnificent species, when it does not exist at any other place within hundreds of miles, is a mysterious but not a singular botanical fact.

The common name of the Nelumbium, among eastern nations, is the Sacred Bean—supposed to be the same as the Egyptian Bean of PYTHAGORUS, and the Lotus of the ancient Egyptians. It is said to have grown in abundance on the banks of the Nile in the days of ALEXANDER, but is said at present to be rare in that country. It was held sacred by the Egyptians, probably because it was employed as food in times of famine. The Romans, we are told, sent to Egypt expressly to obtain the seeds of this plant, but with what success does not appear. The traveler THUNBERG says that the Nelumbium is considered a sacred plant among the Japanese, and that their idols are often represented sitting on one of its great leaves.

It grows in abundance in the ponds and marshes of China, and in most parts of India, where it is highly esteemed as a luxurious condiment, and sometimes as an article of diet. Sir GEORGE STAUNTON, in his embassy to China, says that the seeds of the Nelumbium, as well as the roots and stems, are used as food among the high mandarins, the first being made into a kind of paste, and the other parts cut into thin slices, are served up with ice, and some peculiar condiments, making one of the courses highly esteemed at the meals of that luxurious people.

In England, LOUDON says that the *Nelumbium speciosum* has not been very successfully cultivated. The attempt has been made by means of large pots with rich mold at the bottom, filled with water; and by planting the seeds in the tank of a hot-house. In both cases he says that it requires a strong and constant stove-heat to make it flower to perfection. It must be remembered, however, that LOUDON has reference to the *speciosum*, which is exclusively, or generally, found within the tropics; whereas, our Nelumbium is found as high north as latitude 42°, and hence may be cultivated without any artificial heat.

The Nelumbium may be propagated by dividing the rhizoma, or prostrate trunk; but the better way is to plant the seeds, first cutting through the hard portion of the capsule, to admit the moisture. Mr. KENT (*Hort. Trans.*) says that the seeds of this plant have been known to vegetate after having been kept for forty years, and that it flowers the first year. That it will grow when forty years old, is not incredible, when it is known that grains of wheat found in Egyptian mummy cases, supposed to be three thousand years old, have been known to vegetate freely; and that the Nelumbium will produce flowers the first year, is not singular, when it is known that the *Victoria regia* flowers in five months, though a much larger plant.

The seed of the *Nelumbium luteum* resembles in size, color, and form, a small acorn. This is to any inquirer a curiosity, and to the scientific botanist an anomaly. When opened carefully, so as not to destroy the parts, it will be found to contain, in a hollow sack, a complete embryo of the future plant—the root, stem, leaf, and seed vessel, all being conspicuous. The annexed cut, one-third larger than the natural size, presents the form and appearance of this sack and plant, only that the embryo is deep green. This color is itself a striking peculiarity, being, it is believed, the only known instance where the green color has been assumed without the aid of light.

To the vegetable physiologist, the seeds of this genus have long been a puzzle, so that the most learned botanical doctors have not been able, without controversy, to decide where it belongs, either in the natural or artificial classification. Indeed, for the last half century botanical philosophers have been disputing about this plant, and scores of pages, with illustrations, have been written to prove on the one side that this genus is monocotyledonous—that is, having but one cotyledon, or seed-lobe, like Indian corn and the Palms; and on the other, with equal force, it has been contended that this genus is dicotyledonous—having two cotyledons, like the Bean, Acorn, and Chestnut. With the view of forming an experimental opinion on this vexed question, I placed some seeds of the Nelumbium in water, kept tepid for several days, first dividing the hard crust of the capsule, so as to admit the fluid to the second coat. In two or three days the seed separated into two parts, through what appeared, when magnified, to be the natural fissure, thus forming two seed-lobes of a dicotyledonous capsule. This fact, with the reticulated structure of the leaf, leaves no doubt that this is an exogenous plant.

THE FINER VARIETIES OF THE FUCHSIA AS WINTER FLOWERING PLANTS.

BY EDGAR SANDERS, GARDENER TO J. F. RATHBONE, ALBANY.

It may not be generally known, or if known but little acted on, that some of our finest varieties of Fuchsia form magnificent objects during the dreary months of winter, if rightly prepared, and a genial atmosphere given them.

One of the principal aims, I take it, of a gardener in this country, should be the supply of an abundance of flowers during the winter months. In more temperate climates, where a bunch of flowers in ordinary winters can be plucked out of doors at almost any time — where evergreens, especially the broad-leaved kinds, can always be enjoyed — that desire for a bunch of flowers is not felt as in a climate like this, where out-of-door flowers in winter is a "case," and broad-leaved evergreens a "case" too; for they have to be wrapped in a case of some kind, generally far from being beautiful.

The green-house is wholly inadequate, during the winter months, to supply the floral gems we need; an ordinary hot-house is the climate, where the night temperature is seldom below 55° — more frequently 60°. "But," the first salute is, "our hot-house is too much crowded; I can not spare the room." We think differently, and will proceed to show. Any plant, the flower of which hangs beneath the foliage, shows to good advantage if considerably elevated above the line of vision. It is so with the Fuchsia; give it a straight single stem of say four or five feet high, allowing it to form a head at the top and no plant shows to greater perfection. The head is not generally dense, but spreading, slightly drooping from the weight of flowers at the point, and if placed at the back of the house, is no injury to any plant beneath from shade, and occupies a portion of "space" usually vacant.

Select those kinds most free of flowering and the most difficult of breaking into wood regular — as *speciosa*, *Eliza Meillez*, *Snowdrop*, and *Sir John Falstaff*, which will afford a good variety in color — and strike in the ordinary way in the spring. Keep them in a warm, growing temperature, and the side shoots pinched back till the height wished for is obtained, having gradually shifted them till they are in say 7-inch pots. Pinch out the top, which will induce several eyes to start, rub off all branches and foliage below them, and plunge the plants for the remainder of the summer in the open border. Keep them from making much growth or flowering while in this place by an occasional stopping. Early in the fall take up your plants, and repot them into pots two or three sizes larger. Any time during November place them in the stove, where they will begin flowering immediately, and continue without intermission all the winter and spring.

Here you can cut flowers without compunction, in any quantity, which will frequently obviate the necessity of cutting from other plants flowers that will remain a long time in perfection if left on the plant — a point often of considerable importance to the gardener, in keeping the houses gay.

We have now a plant of *speciosa*, which was a cutting last year, with a stem hard and woody, and two and a half inches in diameter three feet from the pot. It alone has furnished hundreds of blossoms for cutting, beside those which have dropped, and

has been the admiration of all who have seen it. It has been occasionally watered with weak liquid manure water, which counteracts the tendency of pot-bound plants, and especially the Fuchsia, to produce small flowers. The one mentioned has flowers as fine now as when in a young state.

[We commend Mr. SANDERS' practice. The Fuchsia is a valuable acquisition to the winter green-house, when well flowered, as we saw some specimens in Mr. RATHBONE'S house last February.—ED.]

DIRECTIONS FOR MAKING BOUQUETS AND FLORAL ORNAMENTS.

BY D. R. K., ROXBORO, PA.

IN fulfillment of the promise made to you, I proceed to offer a few practical directions, intended principally for the amateur florist, for making bouquets and floral ornaments.

But before commencing, allow me to make a few preliminary observations in regard to the importance of adhering strictly to the laws and dictates of a cultivated and refined taste in order to ensure success. And first I would remark that there is a prejudice existing in the minds of many in regard to the arrangement of flowers in elaborate designs and ornaments—a prejudice which makes no distinction between the manifest absurdity of attempting to imitate in flowers objects which are entirely destitute of either beauty or adaptability, such, for instance, as the monstrosities in the shape of monuments, fountains, tables, &c., which yearly disgrace some of the horticultural exhibitions in our large cities, and the forming of ornaments or designs natural and graceful in conception, and elaborate and artistic in execution. How often do we hear from such persons the remark that a bouquet formed of flowers culled at random, and put together in the most careless manner, is far more pleasing than one of a more elaborate character, and yet should one arranged with good taste, and a due regard to the harmony of colors, be exhibited, what exclamations of delight and admiration would reward the artist for his labor. To a person whose highest conception of a bouquet or floral ornament does not exceed a bunch of Hollyhocks and Asparagus, with, perhaps, the addition of a Pæony or two, the directions here given will appear useless and trifling; but when such an one witnesses the result he will perhaps change his opinion.

With these few remarks I pass to the more practical part of my subject; and first in order, are the requisite tools and materials.

The *tools* required in making a bouquet are a flower-gatherer—which is a pair of scissors that holds the flower tight after it is severed, and which can be obtained at any of our horticultural warehouses—a sharp penknife, and a good strong pair of ordinary scissors. The *materials* for forming the frame-work of a bouquet, are a good, strong, straight stick, from twelve to eighteen inches long, according to the desired size or height of the bouquet, observing to have it long enough to leave room to hold it in the hand at the lower extremity until the bouquet is completed, when the stick is to be cut off even with the lower end of the bouquet; a handful of straight switches from trees or shrubs, of sufficient strength and stiffness to sustain the weight of a good sized flower when attached to their upper extremities, and about eight inches long; also a small

quantity of the whisk from an old corn broom about six or eight inches long, a single straw of which is used for supporting the heads of small flowers, such as Violets, &c. In addition to the above, procure two coils of unannealed, or very pliable or flexible, copper or iron wire, one coil of which should be about the thickness of a pretty good sized pin, and the other the finest almost that can be procured, not larger than fine spool-cotton or horse-hair. The first mentioned is used for attaching Camellias and other large flowers to the switches, or artificial stems, and the latter for the smaller flowers, and is much preferable to twine or thread, as it does not require tying, but is merely passed four times around the flower and its support and is then cut off with the scissors. I would recommend that copper wire should be used, particularly the larger size, as iron wire if left in the green-house soon becomes rusty and soils both the hands and the flowers. The commercial gardeners generally use iron. A ball of good strong hemp or cotton twine, or tie-yarn, is requisite for putting the bouquet together and must be kept in a flower-pot at your feet, to keep it from rolling about. A quantity of evergreen, such as Cedar, Arbor Vitæ, or, what is better than either, the small evergreen vine, or Lycopodium, which grows in profusion in New Jersey and other localities, and is used for making wreaths for ornamenting churches in New York and Philadelphia at Christmas, for filling in the interstices between the flowers and for finishing the lower part of the bouquet.

Before describing the *modus operandi* of making or putting together the bouquet, allow me to say a word or two in defence of the practice of using flowers with short stems. Of course when a collection of plants is very extensive, or when the kinds used are not mostly of a valuable kind, there is less necessity for economy; but where the reverse of this is the case, I know of but one objection that can be urged, and that is that the flowers will wither sooner than if their stems reached the water. This objection has been found by experience to be far less serious than it appears at the first glance to be, for if the interstices between the supports of the flowers be properly filled up with any kind of materials, such as evergreens, moss, or the like, to retain moisture, and the bouquet is turned upside down once or twice a day and water poured on it, it will retain its beauty and freshness for a week at least, and I have seen a bouquet two weeks old so fresh that it called forth the admiration of all who inspected it.

Before quitting this branch of my subject, I will offer a few suggestions in regard to the economical use of flowers which will be found of considerable importance where the demand is greater than the supply. By a careful examination of the botanical structure of various plants, it will be found that a number of them produce their flowers in clusters or umbels, and that in many cases the upper buds expand sometime before the lower ones, consequently if the whole head is cut off the later bloom is entirely lost. This is especially the case with Geraniums, (particularly the scarlet,) Primroses, Bignonias, etc., and it will be found a considerable saving to only cull the expanded blossoms. There are also other plants which produce their flowers in long spikes or garlands, such as the Acacias, the *Euphorbia Jacquinæflora*, the *Spiræa prunifolia*, and others, all of which can be divided into pieces from one to two inches long and will have quite as good an appearance in the bouquet as if the whole stem were used. Again, there are other plants, and among them some of the most gorgeous and showy descriptions, whose flowers are too large to be used entire and consequently require to be divided; among these are the *Poinsettia pulcherrima* and the *Strelitzia regina*.

The first of these produces a flower of no beauty, but it is surrounded by scarlet leaves or bractæ of the most gorgeous splendor, the heads measuring in some instances twenty inches in diameter; these bractæ have a fine effect when introduced singly or in pairs. In dividing them, insert your knife at the top and pass it down perpendicularly dividing the flower and stem into two equal parts; then sub-divide these until you have but one or two bractæ with a small piece of the stem attached to each; these sections are then to be tied to supports and are then ready for use. The *Strelitzia* produces a flower, or rather a succession of flowers, of a singular shape, but of a beautiful combination of colors. They appear in triplets of two beautiful orange and violet petals, and after one set withers they are succeeded by another set from the same calyx or spathe. Should you cut the whole head you would find it too large and unwieldly, and at the same time lose the succession of blooms. It is therefore advisable to sever the connection and take out the bloom without injury to the rest of the head, and tie it on a stick as before directed.

There is perhaps no plant so much injured by injudicious cutting as the Camellia. It is of such slow growth that should two or three inches of the stem be cut with the flower the plant would not increase one particle in size and the bloom of the following year would be entirely lost. It is therefore absolutely necessary that the flower *alone* should be gathered and an artificial stem supplied of either wire or wood, or both. It is a fortunate circumstance that this flower deprived of its stem is of longer duration than any other.

There is a great diversity of taste as to the shape and size of bouquets. That most generally preferred, however, for hand-bouquets is flat or slightly oval on top, and about eight inches in diameter. I am aware that they are frequently made much larger, but in my opinion they appear heavy and cumbrous. The flat bouquet possesses two important advantages over the pyramidal or cone-shaped, in not requiring near so many flowers, and also in allowing every flower to be seen at one glance. The pyramid, or cone-shape, is however preferred for large bouquets or table designs.

The length of this communication warns me that I must close. In my next I will continue the subject and describe the process of putting together the bouquet.

A VILLA-MANSION.*

A VILLA-MANSION was erected by me, a year ago, in the Italian style, which may serve to illustrate the class of house which, under certain requirements, would be fitting for erection elsewhere.†

The situation for which my services were required to design an appropriate building, was one which, although possessing some peculiar features, had a character not unfrequently to be met with. The land was elevated, commanding a most extensive view across Long Island Sound, and the intervening and surrounding landscape. It was removed about two miles from the water, and at the same distance from the village. A public road skirted the upper boundary of the place, and the surface of the land

* From "*Homes for the People, in Suburb and Country*," by GERVASE WHEELER. † See frontispiece.

and general disposition of various portions of the estate required that the building should be somewhat near to the road. From this road the land rose upward in a gentle slope to a nearly level table, just large enough for the building, and on the other side it dipped down at an angle so abrupt as to render terracing necessary, and to cause the foundation walls at that point to be of considerable height, so that the rear aspect of the lower portion of the house became so open and airy as to suggest a convenient and pleasant bestowal of the kitchen and domestic offices in the lowest floor, which, as it is entirely above ground, so far as used for such a purpose, can hardly be called a basement.

The most cheerfully shone upon sides, and those from which the most desirable points of view of the landscape could be enjoyed, proved to be the rear and side; the front looking toward a comparatively flat expanse of meadow and woodland beyond the road, and the other side having a northern exposure.

The owner required rooms of large size for entertainment and adequate accommodation for the family; also a preference was expressed for ample hall and passage ways—so arranged, however, in summer time or for evening occupancy, as to be converted as it were into inner apartments. A summer kitchen was also thought desirable; and so, with these requirements to guide me, and the knowledge of local circumstances gained by careful and frequent study upon the spot, the plan of the principal floor shaped itself as follows.

In front, a terrace, a few steps in height, leads to the door of the entrance vestibule, No. 1, in which are inner doors to the principal hall. One pair of doors is filled in with a perforated metal panel, to admit air in summer, and is furnished with a close shutter to fit in during cold weather. Upon each side of the vestibule are hall closets, Nos. 2 and 3, with sash doors toward the hall.

PLAN OF PRINCIPAL FLOOR.

The main hall, No. 4, is of magnificent proportions and extent, and in it is a deep recess for the principal staircase, connected with the hall by columns and antæ, which correspond with the other columns in the hall shown in the plan.

On the left of the hall, in front, is the library, No. 5, a room twenty-four feet by fifteen, lighted by a window toward the north, and by a projecting bay in front. Connected with this room is a fire-proof closet or safe, by the side of which is an inclosure containing a dumb-waiter, which conducts from the floor below to the attic, and is

used to convey clothes from the laundry to the drying-room. Upon the other side of the hall is the drawing-room, No. 6, which is, exclusive of the projecting window, twenty-seven feet by twenty, and the projecting window ten by six.

Next to this room is a small salon or vestibule, No. 7, from which a French window opens upon the side veranda, and which also connects with the family sitting-room or parlor, No. 8. This latter room is seventeen feet square, and is so situated as to be the pleasantest apartment upon this floor. A wide veranda stretches on two of its sides, and connecting with it are large closets for family use.

Sliding doors open upon one side into the vestibule, No. 9, at the end of the principal hall, which terminates in double doors leading to the veranda.

Next to this end of the hall is the dining-room, No. 10, which is twenty-four by eighteen, having in its long side a projecting window, which is supported upon brackets from below, and overhangs the deep stone wall that the slope of the ground renders necessary. Immediately under this room is the kitchen, and the projection of this bay window serves as a canopy to its windows.

In the rear of the dining-room is a private hall, No. 11, in which are a flight of stairs to the floor below, a servants' stairway to the chambers, a large china-closet, and a dumb-waiter for transmission of dishes from below. The smallness of the scale renders these portions somewhat minute, but they are all of ample size and convenient arrangement.

From this hall an entry leads to a summer-kitchen, No. 12, which is fifteen by nineteen, and so placed as, though sufficiently removed from the main building to prevent heat or odor penetrating the interior, is conveniently near for use.

On the other side of the private hall are a large pantry and store-room, No. 13, a lobby conducting to the main hall, and a sleeping-room of large size, No. 14, either for use of a man-servant or of a member of the family.

The extent of the front of this building, exclusive of the projection containing summer-kitchen, is sixty-six feet, and its greatest depth, from front line to end of dining-room, is sixty-nine feet two inches.

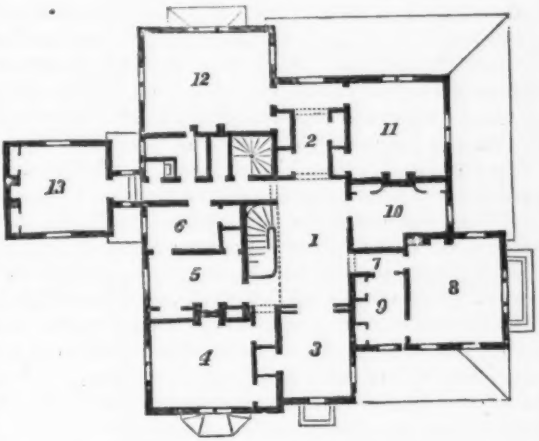
The spacious verandas that fill up the outlines of the plan, so as to make them nearly a square, are of great value. From that surrounding the two sides in the rear the most lovely view that can be conceived is enjoyable; and, as the level of the ground falls away so rapidly, it is on the rear greatly above the surface, and descent to the terrace and gardens below is by a flight of broad steps. Beneath these rear verandas a screen protects the offices from sight, and upon this side a conservatory is formed, with glass in front and at the end.

The space below is occupied by a large kitchen under the dining-room provided with a range and boiler, an old-fashioned brick oven, and a large open fire-place for roasting. There is also a laundry beneath the family parlor, and, in the rear of that, a bathing-room for the use of the servants. Spacious provision is made for the furnace, which is below the vestibule, No. 7, and the rest of the space is filled with store-rooms, cellars, milk-room, larder, &c.; all carefully arranged and of liberal size. Below the summer-kitchen is the coal-cellar; and, under the entry that leads to it, space is left for a retired inclosure containing a water-closet for the servants.

The plan of the whole building is one affording absolute perfection of convenience, and the effect upon entering is exceedingly imposing. The wide and lofty hall, relieved

by the columns that divide its length, and by those separating the recess that contains the principal stair-case, is a feature that is carried out in a manner not often seen, and at the same time the rooms are so disposed about it as to make its ample dimensions to involve no loss of space, but rather to afford an increased scale of internal accommodation. Few houses afford so liberal and yet so controllable a scale of accommodation; and the chamber floor is equally generous in its arrangements.

The staircase opens into a large central hall, the side of which, toward the stairs, is composed of pedestals supporting three shafts with arches between, the handrail and balusters being returned around the wall of the staircase behind this arcade, the purpose of which is to support the floor above. This portion of the hall is eighteen by twenty-two, and at one end an open arch leads into a narrow vestibule terminated by a window overlooking the rear balcony, and, at the other, sliding doors shut off a chamber over the front portion of the hall, which can be used or not, as may be required. These are designated upon the plan by the figures 1, 2, and 3, the latter being the chamber referred to, which is twelve feet wide and fifteen long, opens upon a balcony over the front terrace, and has a large closet fitted with drawers and shelves upon one side.



PLAN OF CHAMBER FLOOR.

Near to this is a large bed-room, No. 4, over the library, having a closet similarly fitted to that of No. 3; and in the rear of this is a bed-room, No. 5, and a dressing-room or single chamber connecting with it, No. 6.

Upon the other side of the hall is an entry, No. 7, leading to a sleeping-room and dressing-room, Nos. 8 and 9, occupying the space above the drawing-room; and in the rear of these is No. 10, a chamber thirteen by seventeen, over the ante-chamber below, and shaped so as to make a large recess to contain the bed.

No. 11 is a cheerful room, the same size as the family sitting-room, and provided with a large closet and convenience for drawers.

In the hall or entry, No. 2, are spacious cedar and other closets for linen and for clothes not in use; and from this hall a noble room, No. 12, the same dimensions as the dining-room, is reached. From the main hall a passage leads to the private stairs, also to a bathing-room and two water-closets, one of which is entirely private from the bath-room. Beyond this is a sleeping-room, No. 13, over the summer-kitchen, to gain which a few steps are descended in a well-lighted entry.

All of these rooms are of large size, have fire-places, abundant closet accommodation, and are so arranged as to door or window openings as to afford convenient places for the bed and requisite chamber furniture—a matter of no trifling value.

Upon the floor above, the roofs are carried up in such a manner as to make attics over the drawing-room, and the whole of the rest of the house, excepting the lower portion above the family sitting-room and the summer-kitchen.

In addition to this, a tower is extended a clear story above the roofs, and is placed at the end of the hall; and as the external view of the building sufficiently exemplifies the position of this feature, and the space contained in the attic, a plan is not thought necessary.

The whole of the room above the drawing-room portion of the building, a space nearly forty feet in length by twenty in width, and six feet high upon the walls, rising, however, with an arched ceiling, to considerable elevation in the center, is made a drying-room for linen, is warmed by a heating apparatus below, and is made conveniently accessible by a dumb-waiter or lift, which is constructed in an inclosed shaft that runs from this story to the basement or kitchen floor below.

There is a very large reservoir or water-cistern also upon this floor, placed over where the bath-room and private hall are arranged in the chamber floor below. This cistern is so supported by the brick-work of the chimney-shaft, and by its position in regard to the frame of the building, as to be exposed to no danger from its weight; while, to prevent accident in winter, it is entirely surrounded by passages, so as not to come in contact with the outer walls, and has a hot-water pipe coiled within it, through which a circulation from the boiler below would keep the water at such a temperature as to prevent action of frost. This reservoir is fed not only from the roofs, but also, in case of failure from such a source, can be supplied by a force-pump connecting with the large cisterns that are constructed below; and from this, pipes distribute the water, both cold and heated, to all portions of the house.

There are upon this floor four large sleeping-rooms for servants, and a room of noble size above the chamber over the dining-room, to be occupied either as a sleeping-room or children's play-room, as the family may prefer.

There is also a small room, about nine feet by twelve, in the tower, which I believe has been bespoken as a sleeping-room by a member of the family that appreciates the magnificent scenery that its windows command; and again, above this, is the upper room or observatory in the tower, twelve feet square, the space taken from the room below to contain the stairway to this upper room, being nearly all available therein. No description can do justice to the grandeur of the land and marine view that this tower commands; and not only is the presence of this feature amply justified, but the indweller or casual visitor would pronounce the house incomplete without its provision, which, by the way, can not be said of all the towers that are seen in modern villas.

The whole interior effect has been obtained by elegant proportion and somewhat simple finishing, rather than by extravagant outlay. In the drawing-room and other apartments upon the principal floor, the cornices and ceiling decoration show somewhat of ornamental finish; but the rooms are so justly proportioned—height to width and length—that they could safely be left to the effect of a less ornate embellishment. The hall, however, has features of very great beauty in the columns that have been before spoken of. There are in all, six of these, with their antæ. Those supporting

the wall above the recess containing the principal staircase are of Brocatelle marble; the other four across the hall itself, at right angles to these, are of Sienna, the caps white and the base and plinth of statuary marble. Their style is Ionic, with capitals designed in the simplest form of this beautiful order.

The staircase, with its balusters and rail, is massive and handsome, and the steps of peculiarly easy ascent.

Although the building is large, the composition of its parts is such as not to give an ostentatious appearance; and the details are all carried out so consistently with the spirit of the style determined upon, that the general effect of the whole mass is not hazarded by any discrepancy in any portion of the construction.

The architectural style is that of the modern Italian, having a general resemblance to many of the peculiarities of the buildings erected in the suburbs of Rome — and hence of the Roman rather than of the Florentine or Venetian periods. I do not claim that it is a facsimile of any one of them; but, so far as material would permit, and modern convenience and common sense justify, the whole has been faithfully conceived in a spirit analogous to that which gives vitality to the buildings that originated this style. The walls, from the foundation to the level of the principal floor, are built of stone, and are laid in regular courses as to their horizontal lines, but in stones of unequal sizes and divisions. The masonry is of the very best description, and, from the top springs the building which above the ground is of frame, filled in with brick, double-boarded on the outside and covered with clapboards, the edges of the overlap of which are rounded, by which means they are not liable to be bruised or otherwise defaced. The stone placed within reach of the builder was one of such extreme hardness as to render the construction of the entire building a matter of very great expense, nor could the architectural features have been executed but in stone of different texture; and it may be added that the owner was neither willing to delay completion of his house the time such a mode of construction would have required, nor to expend the vastly increased amount that would have been demanded.

This house was built carefully by day's work, and its cost, including all that thorough completion involved, was twenty thousand dollars. Of this sum, a very large amount was expended upon the heavy stone masonry of the foundations and lower story, and in almost any other situation the cost could be very materially lessened. The sum named, moreover, included furnace, painting, plumbing, and the provision of gas-pipes throughout the whole building, the owner intending to provide a gas-house and apparatus in a secluded situation below the house.

PRINCIPLES OF BEAUTY IN GRECIAN ARCHITECTURE.*

The most brilliant epoch of Grecian architecture, and to which we are to look for perfection in the art, was comprized in the short space of about two hundred years, including the respective ages both of Pericles and of Alexander, from whose death its gradual decline may perhaps be said to have commenced. But under the subse-

* From *Earl of Aberdeen's Inquiry into the Principles of Beauty in Grecian Architecture.* London: John Murray. 1822.

quent dominion of Roman emperors, its deterioration was still more apparent; for, although the sovereigns of the world astonished mankind by the prodigious dimensions and gorgeous splendor of their architectural undertakings, yet when compared with the purity of Grecian design, the evidences of barbarism are perceptible in most of their works. This corruption of style, unattended, however, with any diminution of cost and magnificence in the buildings themselves, rapidly increased until all vestiges of beauty aud propriety were lost in the long period of darkness which followed the destruction of the empire.

At the revival of the art in Italy, during the fifteenth and sixteenth centuries, the great architects who adorned that country naturally looked for instruction to the monuments with which they were surrounded — the wrecks and fragments of imperial Rome. These were not only successfully imitated, but were sometimes even surpassed by the Italian artists; for BRAMANTE and M. ANGELO, PALLADIO and BERNINI, designed and executed works which, although of unequal merit, may perhaps fairly challenge a comparison with the boasted productions of the Augustan age. It is not, however, to be expected that their compositions should be free from those imperfections which are to be found in the models from whence they derived their knowledge, and on which their taste was formed. The precious remains of Grecian art were long neglected, and the most beautiful were, in truth, nearly inaccessible to the christian world. It is almost in our own time that obstacles, formerly insurmountable, have been first vanquished; and that the treasures of art, still unfortunately in the custody of ignorance and barbarism, have not only been visited, but have been accurately measured and delineated. Henceforth, therefore, these exquisite remains should form the chief study of the architect who aspires to permanent reputation; other modes are transitory and uncertain; but the essential qualities of Grecian excellence, as they are founded on reason, and are consistent with fitness and propriety, will ever continue to deserve his first care. These models should be imitated, however, — not with the timid and servile hand of a copyist, but their beauties should be transferred to our soil, preserving, at the same time, a due regard to the changes of customs and manners, to the difference of our climate, and to the condition of modern society. In this case, it would not be so much the details of the edifice itself, however perfect, which ought to engross the attention of the artist, but he should strive rather to possess himself of the genius by which it was originally planned and directed; and to acquire those just principles of taste which are capable of general application. The words of a competent judge, in describing the practice of the Greeks, will give additional weight to these opinions: "*Omnia enim certa proprietate, et à veris naturæ deductis moribus, traduxerunt in operum perfectiones: et ea probaverunt, quorum, explicationes in disputationibus rationem possunt habere veritatis.** [*Vitruo*, Lib. IV. c. 2.]

* In the most perfect of their productions they suffered nothing to enter but what was consistent with propriety, and deduced from the just ordinance of nature; approving only of what could be supported by arguments founded upon the basis of truth and reason.— *Wilkins' Translation.*

For the perfection of all works depends on their fitness to answer the end proposed, and on principles resulting from a consideration of nature herself, and they approved those only which, by strict analogy, were borne out by the appearance of utility.—*Gwilt's Translation.*

My Life in the Country:

OR, CHRONICLES OF OAKLAND HOME.

BY FRANK HAZLETON.

CHAPTER IV.

SPRING IN THE COUNTRY—ENGAGES A GARDENER.

It was in the spring of the year—that beautiful season so much lauded by poets—that I took possession of my country home. Being anxious to commence operations early, and lured by a warm day or two in March, I hastened to my farm, fearing that I had already lingered in the city too long, and that the season was too far advanced to permit me to make all my proposed improvements. The Robins and Blue-birds had preceded us, and with their beautiful music gave us a joyful welcome to our new home, and a pleasant introduction to country life. But the pleasure was all in anticipation, for on the following morning winter seemed to have commenced again in earnest. Storm succeeded storm. Snow, cold winds, rain, and mud, not only rendered out-door labor difficult, but for me impossible. I suppose there are some folks so poetical that they can see beauty in every thing, and this I suppose is what is meant by

"Winter lingering in the lap of spring."

Unfortunately I am no poet, and I can see no beauty in a snow storm in April, or in mud to the tops of one's boots. I was illy prepared for such a depth of soil, and when I ventured out made rather a singular appearance, generally returning with one overshoe in my hand—that is, if I had the good luck to find it and dig it up. One of my young hopefuls remarked that father walked through the mud just like a cat. Not a very flattering, but perhaps a truthful remark.

Not being able at present to do anything myself, and really having my ideas of my ability to make myself useful on a farm somewhat lowered, I thought I would secure the help I needed. And here arose a somewhat difficult question. Did I need a Landscape Gardener and Garden Architect, such as I noticed had advertised their services; or did I want a common Gardener, or a Farmer? Not being able to decide these questions satisfactorily, I merely advertised for a person to take charge of my place, giving a description, &c. This advertisement brought me several letters, as well as some personal applications.

John Roseberry, the first applicant, was an Englishman—at least, so he said, though I rather think by his speech he wasn't a *native*. According to his own story he had superintended some of the most beautiful and extensive establishments in Europe. He had been engaged in the Kew gardens, and had done much to give them their celebrity. Louis Phillippe had despatched a special messenger for him, to consult with him as to the arrangement of the gardens of the Tuilleries. He had given the finishing touches to Chatsworth; and, in short, no work of importance had been

undertaken for the last ten years unless his advice and counsel had been first sought. He had come to this country only to see the vegetation of North America, and thereby increase his knowledge; but concluded on the whole to take charge of a place, if he could get one worthy of his attention. I really began to be alarmed at the great loss the country must have suffered from his departure. He knew the name and nature of every plant and shrub. Indeed, it was strange

"That one small head could carry all he knew."

Being doubtful of my ability to command so much genius and knowledge to decorate my humble home, I decided to give Mr. ROSEBERRY an answer in one week, when, if his talents had not secured him a more advantageous position, I might endeavor to make a bargain with him.

The next applicant was THOS. HAWTHORN. He too was from across the water; and I learned, on informing him of the previous application of Mr. ROSEBERRY, that they had both worked at the same place. HAWTHORN smiled when I told him of the abilities of ROSEBERRY, and informed me that he was only employed by the gardener to keep the grass and weeds from the gravel walks, and to assist in mowing and sweeping the lawn, which he did so poorly that he was dismissed. Still, this statement may have been caused by professional jealousy. Mr. HAWTHORN urged his claims quite zealously, and stated that in making gravel walks he had no superior. Before leaving home, his reputation had become almost national. He was overrun with orders for walks for gentlemen's grounds, and had to escape to gain rest, or he would have fallen a victim to his abilities in this line. No one in this country understood the principle. I afterwards learned that Mr. HAWTHORN'S abilities in making road were developed in breaking stone by the side of the road, to repair the turnpike that passed through his native village.

The third applicant was also a man of remarkable genius. He had been used to first-class establishments, and proposed that I should make at once green-houses, forcing-houses, grape-houses, arbors, grottoes, rustic houses, bridges, serpentine walks, lawns, &c. I began to grow enthusiastic at his glowing descriptions of the beauties in reserve for me, if I would but adopt his plans and employ him in their execution. He seemed to understand his business, and to be really in love with it. But I fear he was one of those who astonish their employers as much by their extravagant expenditures as by the results of their skill. As I yet felt sore over the cost of my house, I thought it not best for the present to run the risk of any very great expense.

Soon came along another gardener, who made no very great pretensions. If he had not much knowledge, he certainly had some modesty. He thought he understood his business, and was willing to do his best to carry out my wishes, and hoped if he engaged with me he should prove himself worthy of my confidence. He appeared intelligent; I knew him to be modest; he did not look like a vain-boasting pretender; and I engaged him. I have had no reason to regret my choice.

I was now prepared to commence operations in earnest. But, as I am talking of the help I received in commencing my work, I must not forget the very valuable assistance of a kind and intelligent neighbor, a young farmer, residing only a mile from my place. I had noticed his farm, as being remarkable for its neatness. Everything bore evidence

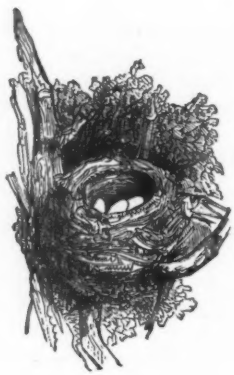
of intelligent and well-directed labor. The trees in the orchard bent under the weight of luscious fruit. The well-kept lawn, and beautiful shrubs, and fragrant flowers, marked this place as the abode of taste and refinement. Though I did not like the idea of copying, yet I thought I would keep this place in my eye, as a model. I was therefore highly delighted, soon after my location at my new home, with a call from my neighbor, JOHN GROVE. He very kindly informed me that he had called over to proffer me any assistance in his power, as he had observed that my present vocation was a new one, and one for which at present I seemed hardly fitted. After thanking him for his kindness, I related some of my schemes, as well as my doubts and difficulties. He very frankly gave me the benefit of his experience and counsel; and his aid to me was invaluable. While applauding my determination to take up my home in the country, he warned me of the causes which made so many city gentlemen disgusted with country life after a season's trial, and pointed out with the clearness of a philosopher the real pleasures of a country life. I became delighted with his intelligent conversation, and listened attentively as he proceeded: "Those who remove to the country for its enjoyments, generally anticipate too much. They imagine the country sky to be ever bright, and all seasons alike pleasant. They seem to think luscious fruits anxiously wait to be plucked at all seasons of the year. They fondly hope to escape 'all the ills that flesh is heir to.' But this dream is never realized. There are clouds and storms, as well as sunshine, in the country. No spot, however salubrious or lovely, is exempt from sorrow, sickness, and death. The country affords its peculiar pleasures, and solid advantages; but to be fitted for their enjoyment, we must have some rational ideas of their nature. We must learn to love and appreciate the roomy, well-ventilated house, the free air uncontaminated by the smoke of chimneys, the cheerful aspect of vegetation; the songs of birds, and the beauty of the flowers, afford pleasures of no mean character to the man of thought and taste." He claimed that gardening was a great educator of children. "Parents," he said, "should teach their *children* to love and practice gardening. It will learn them system and order, patience and hope; it will give strength to the body and the mind; it will improve the head and the heart. It will teach them self-reliance — that success is the reward of industry and perseverance, while failure is the result of negligence. It will teach them to

'Look from Nature up to Nature's God.'

Few realize the injury they do, and actually suffer, by depriving themselves and their children of the pleasures afforded by the cultivation of flowers — these children of the field. A farmer and his wife, in easy circumstances, not a thousand miles from this, had an only son, who, much to the sorrow of his parents, had imbibed a desire 'to go to sea.' He had read of the raging billows — of strange people in strange lands — of Orange groves — of lands where the Pine-apple grows — of exciting scenes in capturing the whale — and his whole heart seemed set on seeing foreign lands and living on the ocean wave. In vain his parents endeavored to interest him in the operations of the farm. He worked, to be sure, but his heart was not in the work. It was a drudgery, and he longed for the time when he could bid farewell to parents and home, and see the world for himself. At that time a Horticultural Society was established in the county, and at the first exhibition fruits and flowers of the finest kinds were displayed,

many of them brought from a distance, and such as had never been seen in the neighborhood before. The young man attended this exhibition, and looked at the display with wonder and surprise. Nothing astonished him more than the lively, joyous interest, those engaged took in the arrangement of their several collections. While he had looked upon everything connected with the cultivation of the soil as a heartless drudgery, here even the ladies appeared to engage in it with a zeal and a pleasure he could hardly account for. One class of flowers particularly attracted his notice; he procured a few plants—planted them, and nursed and watched them, and waited anxiously and impatiently for the coming bloom. In due time his plants blossomed, and their extraordinary beauty repaid him for his toil. He carried off the prize at the next show. Elated at his success, and the pleasure it afforded him, he increased his collection—forgot all about the sea and strange lands—and became one of the most enthusiastic and intelligent cultivators, and the most successful competitor for prizes at the shows of the Horticultural Society. He now takes hold of farming in earnest—aims at the finest crops; and the parents reap in the society, perhaps, the salvation of their son, and in the better management of the farm, the happy influence of flowers upon the young mind, and the benefits of horticultural societies. But for this society, sir," he continued, "I should not have had the pleasure of your acquaintance, nor you the benefit of my advice."

When my friend bade me adieu for the evening, I felt I had gained some new ideas—some food for thought and reflection.



Editor's Table.

Death of Thomas Hancock, of Burlington, New Jersey.—Mr. Hancock died at his residence, in Burlington, on the 21st of March last. The announcement took us quite by surprise, as Mr. H. had attended the meeting of the National Agricultural Society, at Washington, in the latter end of February, and we had not heard of his illness since—another illustration of the uncertainty of life. Mr. Hancock was well known to the nurserymen of this country, and to all who were in the habit of attending the meetings of the American Pomological Society. He took an active part in organizing that Society, and has been present at all its meetings and participated actively in the proceedings. He was an energetic, zealous, public-spirited man, ever ready to co-operate in plans of agricultural and horticultural improvement. He possessed a friendly, kind-hearted, and sociable disposition—was always free and candid in the expression of his opinions, and honorable in his dealings. His death is a great loss, not only to his family and friends, but to the public. We copy the following from the *Burlington Gazette:*

"Death of Thomas Hancock.—It is with no ordinary feelings of regret, that we announce this sad event, and we deem it proper that some suitable mention should be made of him, whose decease produces so great a void in the community.

"Thomas Hancock is known throughout the United States as the proprietor of the *Ashton Nurseries*, which he and his brother, B. D. Hancock, established as early as thirty-two years ago. Although these extensive nurseries contain almost every variety of trees, fruits, and flowers, indigenous to this climate, Mr. H.'s attention within the last ten years has been mainly directed to the cultivation of rare varieties, and he has been pre-eminently successful. That which was started as an experiment, has fully attained, through his skill and perseverance, the ripe measure of entire success, while each succeeding year has increased its value, and added to the well-earned reputation of the proprietor.

"He took a deep interest in the advancement of agriculture and horticulture, and, as a member of various societies, has contributed the result of his experience for the good of these branches of industry.

"His last public act was participating in the proceedings of the National Agricultural Society at Washington, an association of which he was one of the founders.

"Mr. H. was one of the originators of the Burlington County Agricultural Society, and was appointed upon the most important committees. He was punctual in his attendance upon all meetings, and in the details of the operations of the Society he constantly took a prominent part. His importations of blooded stock have added much to the value of cattle in the county, and we feel satisfied that his efforts to improve the character of the stock, have not been without a beneficial influence.

"He was a member of the Pennsylvania Horticultural Society, and there his loss will be deeply felt. Appreciating the truth that State lines are no bar to the progress of science, he entered upon the duties devolving upon him as a member and officer with energy and zeal.

"The people of this township and county will better appreciate his worth now that he is taken away. He was at all times ready to advise and counsel those who applied to him, and to aid and

comfort the needy and distressed. He has frequently filled offices of profit, trust, and honor, having occupied for several years a seat in the Board of Chosen Freeholders, and to which he had been returned at the election held on the 13th of this month. As a Trustee of the Schools, a Surveyor of the Highways, and in all his local offices, his aim was to do his duty without fear or favor.

"In 1842 Mr. H. was elected one of the Directors of the Mechanics Bank, in this city, in which he was continued until his death, and the officers and stockholders in the Institution must feel that the loss to them is very great.

"To us he was a kind friend, and his personal efforts on our behalf, proved that his sympathy for us was of the warmest kind. We were always grateful to him for his encouragement and assistance, and shall hold his acts and efforts in grateful remembrance.

"His death, we repeat, creates a void which will not be readily filled, for when men of energy and enterprise go off the stage of action, time only can replace them."

HORTICULTURE AT THE SOUTH.—The following interesting letter was not written for publication, but has been placed in our hands by the gentleman to whom it was addressed, with permission to make use of it. The writer is a gentleman of taste and intelligence in horticultural matters from Maine, who usually spends his winters in Florida. The Quince alluded to is undoubtedly the Chinese (*Cydonia sinensis*). It rarely bears fruit in the north.

"Detained here some days for the river to become navigable, I have had an opportunity to look at horticultural matters in this vicinity. Excepting a garden planted about twenty years ago by a wealthy gentleman of taste, and now containing valuable trees, some of which I shall notice, everything in this line is quite recent. Mr. PEABODY, of Strawberry celebrity, cultivates a place in Alabama, a few miles west of this; but as his plants are not now in bearing (there have been two weeks of freezing nights following the severe drouth of summer and autumn,) I have not been to visit it. No doubt I should find much to interest me in the methods and extent of his Strawberry culture, covering I think seventeen acres. A gentleman of wealth formerly living here, (J. G. WINTER, Esq.,) with some of the taste of his family on Long Island, (the WINTERS and PRINCES,) about ten years ago planted Peach orchards, Pear, Apple, and other trees, on a well chosen piece of elevated land about five miles from this city. It has passed into the hands of Mr. R. J. MOSES, who has made additions and improvements for three years, rendering it highly profitable. The sales from his fruits and vegetables this year amounted to $6,000—his choice early Peaches finding a market at Savannah and (by steamer thence) at New York at $15 to $20 per bushel, long before the Jersey orchards send any. He proposes to extend his planting until his trees shall cover 100 acres, embracing 20,000 Peaches, and a good variety of Pears, Apples, Figs, Apricots, Grapes, etc., not omitting the Almond, Olive, and others more rare.

"In the older garden first alluded to, are some finely grown Pear trees of full northern orchard size, (standards,) sound and thrifty, bearing annually abundant crops. Some have been injured by storms, but otherwise I see no evidences of injury or disease, and can not learn that they have ever suffered from blight. Some younger trees, grafted very high so as to leave a long stem exposed to the hot sun of summer, are scalded, showing the necessity of low-working and low-branching in the form of the tree. There are several varieties among the older trees, from which the others have been worked, but the names are unknown to the proprietor, WM. BROOKS, Esq., who has but recently taken an interest in horticulture. He told me that one kind bore a very choice fruit, surpassing all others in excellence of flavor, and bearing over twenty bushels on the full grown tree. I readily recognized it as the *Seckel*, from its peculiar growth, (the foliage having fallen,) and was glad to see thirty or forty trees of the same just coming into bearing well stocked with fruit-buds. These are ripe for eating in July and sell in market at seventy-five cents per dozen. Another kind, said to weigh 1¼ lbs. each, and very good, is probably the

Duchesse d' Angoulême, selling at twenty-five cents each. The most of these trees so exceed in luxuriance of growth the familiar appearance of northern trees, that I could name with certainty none but *Seckel*—fruit and foliage being absent. One, a large and later kind, may be *Beurré Diel*. I have the promise that specimens of each shall be sent north to me next summer to be named and tested with the same varieties northern grown.

"In this garden is an Oleander, very fragrant, grown to be a wide-spreading tree, upon a clean stem or trunk quite nine inches in diameter at the base. A Crape Myrtle of thirteen inches diameter of trunk; *Scuppernong* Grapes with stem five inches in diameter; a common Black Cherry that has attained a height of *thirty feet* in three years; well grown Magnolias, (*grandiflora*) etc.; show the great fertility of the soil. There was also the most symmetrical and well-developed *Torreya taxifolia* that I have ever seen. I gathered four of the seeds from the ground and send them in a box with Quince specimens, but fear they will be too dry to germinate. My attention was called particularly to a tree of the Quince family, remarkable for its large fruit. It has been named by some one here, a *Cydonia sinensis*, and is here commonly called a *Quincidonia*. Ignorant of all botanical nomenclature beyond a few common nursery names, I do not know its variety and am curious to learn what it is, if known much to you, and how it may be propagated other than from seed, which has been uncertain, while cuttings have wholly failed. As the fruit may be rare at the north, Mr. Brooks has given me two specimens to send to you. These I have packed in cotton in a cigar box and sent by express to Savannah, to be forwarded from thence, in care of some ship-master, for Boston, with charge to protect from freezing. One specimen of this fruit weighed 3¼ lbs. In the box is a scion from the bearing tree, and the end of a shoot which grew six feet the past season on a seedling of the same, and some leaves. If they reach you safely, please send the smaller one to my brother. The tree closely resembles the Crape Myrtle, *in its trunk*, shedding its bark annually—is of upright growth, like a Pear, until spread by the weight of its fruit, and the wood very close and hard. The fruit grows usually on the upper side of the limbs, the stem but a short bunch not parting from the tree. Its leaf-buds open with the first warm weather, (in February,) and it was so late as yesterday that I took the last of this season's crop from the tree, showing that a very long season is required for the perfect growth and maturity of the fruit. I think I have seen in some book a description of this tree—perhaps in Downing's—but describing it as a shrub or bush, similar I suppose to what we call the *Pyrus Japonica*. This, however, is a tree twenty feet or more in height. The fruit has a strong aroma, peculiar, and, to some, not agreeable. A very rich preserve is made from its pulp or flesh, after extracting its bitter by boiling, and adding a syrup, while the water in which it has been boiled will make a sweet jelly, its bitter properties disappearing in the second process. *Columbus, Geo.*"

The Paradise d' Automne Pear.—I have been much surprised at several depreciatory notices in relation to this fruit, and especially at the statement of the President of the Massachusetts Horticultural Society—that it has been over-rated, and that he had never tasted a good specimen of it. To this, it might be sufficient to oppose the opinion of his neighbor, Robert Manning, whose reputation as a pomologist, and especially as a cultivator of the Pear, is world-wide. He places it in the front rank of autumn Pears. From five successive years' opportunity of testing it, I most fully coincide with his opinion. The tree is a remarkably free grower, and one of the most prolific that I know of, bearing fully every year of large, fine fruit. When gathered early, *before it begins to change its color*,—say about ten days before it would ripen on the tree,—it is invariably of the most delicious character, excelling, in its exquisite flavor, every other Pear of its season. I am not alone in this opinion, but am sustained in it by that of all, in this vicinity, who have had an opportunity of eating it when properly grown and ripened.

I may add, that on some soils, if left to hang till the color changes, it becomes poor, and, in that state, would warrant the objections that have been made to it. I consider it one of the most valuable of all Pears for general culture. E.—*Worcester, Mass.*

GAS LIME.—Last month it was said, among "Answers to Correspondents," that "gas lime was worthless as a manure." This has brought us the following letter on the subject, which we give entire:

"In the March number of the *Horticulturist* you say 'lime refuse of the gas works is worthless as a manure.' I have used this article some in composting with swamp muck, and on a fallow last summer; and my ideas about it are so very different, I am inclined to ask you to favor us with the reasons why you condemn it.

"I am satisfied there is in most of our soils, of whatever name, a vast amount of valuable, yet inactive, vegetable matter. Beside this, Providence has collected, (for our use, no doubt,) in every part of our land, immense beds of muck, of itself sour and dead, but which may be converted into active fertilizing manure. This can best be accomplished by the use of *alkaline salts*. These will render this otherwise dead and inactive mold available to plants. They also, if wisely applied, attract ammonia from the atmosphere, promote decomposition of the soil, and themselves decomposed by the power of the plant enter largely into its formation. Now, according to Prof. JOHNSTON, this lime refuse, after a little exposure to the air, is more than one-half *carbonate of lime*—one of the best *alkaline salts*, possessing great quickening power. About one-fifth is *sulphate of lime* (gypsum). This, we all know, is good. About ten per cent. is water and coal-tar; two per cent. Prussian blue; and three per cent. alumina and oxide of iron. If these are *facts*, why is this lime *worthless?* I ask for information. T. C. MAXWELL.—*Geneva, N. Y.*"

And our excellent contemporary, *The American Agriculturist*, has the following:

"Lime refuse from the gas works is pronounced worthless as a manure. We should like to know the evidence on which this opinion is based. A large per cent. of it is still caustic lime, and we have never seen any evidence that it would not answer to decompose peat and coarse vegetable matter as well as other lime. If we recollect rightly, the late Professor NORTON recommends it for this purpose. It is the cheapest source of lime accessible to those who live near our large cities. A farmer near us uses it in large quantities, and we have never heard that it was not satisfactory in its action. If any of our readers has had experience in its use, we should like to have their opinions, and the reasons for them."

With due deference to these authorities, we have a decidedly poor opinion of lime rubbish from the gas works. We shall be as glad to learn that it is thus valuable as any one else, for we have a pretty large interest in the matter of manures. Some years ago we were informed by a very intelligent gentleman near Toronto, that it was not worth hauling two miles—that they had tried it to their entire satisfaction; yet it might be valuable elsewhere, or under other circumstances. We have seen an analysis by Prof. JOHNSON, in which he found in 112 lbs., 56 lbs. of water, 20 lbs. of carbonic acid, and 36 lbs. of lime and sulphur. This 36 lbs. is about the same as gypsum, and is all we should consider of any particular value.

Dr. URE, the celebrated chemist, has described it as "vile refuse, which should be buried many fathoms deep in some barren region, for when spread on the farmer's field, after discharging sulphuretted hydrogen with vapor of prussic and other malignant gases, its sulphur gets oxygenated into sulphuric acid—two volatile products alike detrimental to plants."

After all this, it may possess a certain value for mixing with muck, or other material, to form composts, but does it possess sufficient value to be worth hauling, when man and horse labor is high, and when fresh lime and gypsum can be had at very moderate prices? This is the question with us. How can a large per cent. of it remain *caustic*, as the *Agriculturist* says, after the process it goes through in purifying gas? To get at its true value, we must ascertain what proportion is useful as a manure, or for compost; then count up the cost of hauling, spreading, turning, and preparing for use. The great item of expense for manure, with us, is the labor of men and horses in getting it. We await more particular information.

Imposition Exposed.—In the March number of the *Horticulturist* is an article from Germantown, Ohio, headed "Imposition." Whether or not that movement is a part of the following described system of fraud we do not know, but we have full information that a most villainous plan of fraudulent dealings in the way of fruits and flowers, has been carried on in the West for a number of years. Cleveland, or its immediate vicinity, is the place where it is arranged. Foreigners, mostly, if not all of them, Germans, collect together, during summer and autumn, the vilest rubbish of roots, shrubs, and seeds, from the forests and fields, and also the refuse seed of culinary gardens, and the garbage of nurseries and flower gardens. These are carefully packed and labelled with either known and popular names, or with hard botanical names, and are all represented to be either something new and very extraordinary, or of the greatest value.

As a bait to catch "green ones," books of colored plates of fruits, and especially flowers, are shown; also spurious catalogues of noted foreign nurserymen. For instance, they exhibit catalogues of bulbous plants for sale by the Harlem (Holland) gardens, purporting to be the catalogues of the gardeners, yet printed in English and evidently the work of a Cleveland printing press. Whenever a "green one" gets into their clutches, the plates and cataloges are exhibited to illustrate the beauty, value and cost of their select articles. They deal only in superlatives and superlative prices.

In the years 1847–8 they perambulated extensively the Muskingum Valley and the south-eastern borders of Ohio. Then their books looked old and worn from use. The present season they have been renovated by new and fine binding, done, evidently, by a Cleveland bindery. In those years they were engaged in disseminating seeds, bulbs, roots, and plants, of new species, just introduced by the labors of Mr. Fortune, in China. One instance will illustrate their mode of dealing: A large and showy plate of a flower, bearing a long and hard name, was exhibited. It was recently from China, and they, by mere chance, and good luck, had obtained one solitary tuber, which, as a special favor, they would sell for $5 to no one except him who would purchase $10 worth of their other articles. A customer at length swallowed the bait, hook and all. The seeds vegetated in due time, producing a long list of weeds and worthless articles, from a Jamestown weed to the common Poppy and Onion. At length the five dollar tuber put forth its foliage, flower and fruit, and was no other than the Poke-root of the highway.

We have happened to witness their different modes of dealing with both the "green ones" and "know somethings." With the former they are all volubility, free to illustrate and instruct, in ecstacies with fruits and flowers, full of horticultural and floricultural incidents gathered during their *recent* visits to the Harlem, Sawbridge, Angers, and other European establishments. Botanical names roll out of their mouths as freely as water from a pitcher—*Amaryllis regina, vittata, Wegelia rosea, Forsythia viridissima, &c.* Their well stocked boxes and packages can readily furnish these, and everything else imagination can name. Like the enchanted bottle of the juggler, which will turn out rum, brandy, gin, or any other kind of spirits called for, their bundles will yield as readily every species of vegetation customers may require. Of course such accommodating facilities render it proper that round prices should be demanded.

In contact with a "know something," the scene is changed; all is mum or moroseness—"otherwise engaged, can't wait upon you at this time, you want only to look over our valuable things without making a purchase." Happening to fall in their way, and unknown to them, they mistook me for a "green one," their books of plates, catalogues, and whole paraphernalia of imposition, were rapidly displayed—"just arrived, sir, from Holland,—splendid bulb, from Harlem—a new and beautiful blue Amaryllis—*Amaryllis cœrulea*"—the daubed plate was exhibited—"price $3 to $5"—roots exhibited, evidently common garden Daffodills. On expressing doubts as to the existence of a *blue* Amaryllis, and making a few inquiries as to some details about the Harlem nurseries, the scene changed from farce to tragedy. Whew! whew! out flew a volume of curses, aimed at me for being an impudent nurseryman who was endeavoring to injure their business.

The best of the joke is, that hundreds of individuals in northern Ohio, and particularly in the neighborhood of Cleveland, have been cajolled to buy of them a new, delicate, and very large Grape—the *Excelsior*—at the moderate sum of from $2 to $5 per plant, and the foliage of the last season's growth has already disclosed the fact that is is no other than our common *Fox* Grape. These same purchasers would have grudged the payment of fifty cents to a regular and responsible nurseryman for the best Grape which was ever produced.

You observe in the article from Germantown, Ohio, that "this fellow undoubtedly believes the fools are not all dead yet." He knows they are not; and furthermore, in common with all classes of shrewd impostors, he is aware that mankind are more willing to sustain impostors and quacks in all pursuits in life, than upright, responsible, and well-qualified proficients in the same calling.

At the time these traveling horticulturists had just commenced their winter's campaign of imposition, the police was informed of them—of their then locality, their plans, &c.—but paid no more attention to the report than a tabby-cat would, while sleeping by the side of the cooking stove, to your report that a colony of rats were depredating on the grain in the barn. It is full time their impositions were broken up. Will not Editors throughout the country put their readers on their guard? M.—*Maumee, Ohio.*

Black-Knot on Plum Trees.—About ten years ago I purchased from Messrs. Ellwanger & Barry, of Mt. Hope, Rochester, N. Y., a lot of Plum trees of the different leading varieties, planted, cultivated, and drove them right up into bearing, and for the last four years have had full crops of truly noble and luscious specimens of each, and, what is highly gratifying, the trees are entirely free from black gum, or black knot, and are kept so by freeing the branches from all diseased or rotten fruit as soon as it appears.

Strict and close observation for many years past, and the examination of branches upon which the Plum has undergone the process of decomposition in the warm months of August and September, has served to settle the question with me beyond a doubt. I will here refer the reader to trees in his own grounds, say *Washington, Huling's Superb*, and *White Magnum Bonum*. Take your knife, go to any of these that may have dried Plums on; take them off, examine and cut, and in many cases you will find a mortal wound, black, cankered, bark bursted, swollen, and perforated full of holes. These were made by the same worms and insects that were feeding on the decaying fruit, after which fails they find nearly the same food in the well-saturated and decomposed bark, immediately under the rotten fruit, which they feed upon for a certain time and then pass away. They were attracted hither for food only, and not to perpetuate their progeny. They are not the real first cause of the disease, as some have it, yet they hasten the complaint by eating holes in the bark through which the deadly and poisonous gasses and juices enter, and so get into the circulation and is carried to the extremity of said branch, and if a scion is cut from such, the young tree will show it even in the nursery row. The worst cases will be found where the Plum rots on the top, or upper side, of a horizontal branch about an inch or so in diameter, yet I have found even spurs and the smallest branches badly affected by the same, and many killed the first summer by the deadly juices of the affected fruit.

All who grow Plums well know that many varieties bear in clusters, and also know that when a cluster is attacked with the rot, if the diseased Plum is not timely removed the whole cluster will be lost (particularly so in the finest sorts) in a few days. Just so, on the other hand, if the same poisons enter the circulation and get into the body and very heart of a tree, death is certain, though, unlike the fruit, it will take years, instead of days, to accomplish it.

I look upon the above as the true cause of black knot, and as destructive to the Plum as the bite of a mad dog, or as the juices from the flesh of a human being in a state of decomposition, would be to ourselves if applied in a similar manner. The subject is worthy of consideration. Will some able pen take it up? Wm. H. Read.—*Port Dalhousie, C. W.*

Apples of Western New York.—The winter Apples of 1854 have generally been very good and choice. The country has been thoroughly canvassed for what are left up to this writing, (April 16th,) and *Roxbury Russets*, the most plentiful, are taken readily at three dollars per barrel. A dealer told me he was to pay one farmer $1200 for 400 barrels of them of his own raising. Wheat at $2,50, *the ruling price*, cannot pay better.

The *Esopus Spitzenburgh*, *Baldwin*, and *Rhode Island Greening*, have been good, but are taken in the fall for shipment. The few left as sold by fruiterers, I have noticed to be very fair and well flavored.

The *Canada Red* and *Northern Spy* have never been better. The last named I have seen brought in from different sources, and they are not only choice but very beautiful. I have never seen finer specimens than a parcel which a dealer obtained to retail from. They were enormous in size, high colored, and as fresh and juicy as any harvest Apple. I inquired of the growers of them as to the fruitfulness of the tree, and one answered that it is only every other year that a full crop can be expected; others, that every year their trees bear.

High culture is necessary, and the same care will give a greater crop on all other trees. One person told me that he knew of a cultivator of the *Spy* who put on a plentiful top-dressing of stable manure, and the effect was that the next season his trees were loaded with high-colored and large Apples, bending the branches to the ground. A large supply I find are brought to market every season, and this day the price asked by those who have them for sale, is *eight dollars per barrel*, which is the only objection to be found to the *Spy*. J. H. Watts.—*Rochester, N. Y.*

A mode of repelling the Apple Tree Borer.—I have suffered from the effects of the "Apple Borer," having lost some *seventy beautiful trees* during the space of three years. I made use of all the preventives suggested by others that I could get hold of, but all to no purpose. I came to the conclusion *four years since* that the tree must be protected by a covering in order to prevent the little animal from making a deposit. My process was this, and so far successful to the extent of the covering. Early in May, which is the proper time for this region, I examined every tree, and if nits or grubs were there, I followed them with a knife and removed them. I lifted the earth from the collar or base of the tree to the depth of two or three inches, and made use of worn wool bags, of little value, for wrappers, which, when cut into strips, are very convenient. I commenced two inches below the surface and wound the extent of two feet, giving the tree two thicknesses of sacking and securing the same with slender twine. I then replaced the earth and the work was done for the season.

It is necessary to loosen the sacking or covering early in May every succeeding year and wrap the tree again as above stated. When the animal is prevented from piercing between "wind and water," its favorite haunt, it examines for some vulnerable point, but his depredations above the protection, with me, has been exceedingly rare, and when committed, easily detected. Should it be necessary, it is an easy matter to wrap the tree to and around the forks, as there is nothing effectual short of a complete protection.

Since pursuing the above course, I have not lost one tree that was not too far gone to recover, and *no new deposits* under the covering has come to my notice. Wm. McKie.—*Salem, N. Y.*

Effects of the Winter in Oneida County, N. Y.—Fruit is entirely cut off here, excepting Apples, and full one-half of those are killed. I could not find one Pear blossom-bud alive. Grape vines in vinery are killed to the ground. They were covered with newspapers tied at least six double, and eighteen inches of straw beside. The wood of the vines was well ripened. On the 6th of February, the lowest I saw the thermometer was 28° below zero, at 7 A. M.; early in the morning it may have been lower. M.—*Trenton Falls, N. Y.*

EARLIEST PREMIUM FOR GRAPE-CULTURE IN NEW YORK.—I received the following from Dr. F. B. HOUGH, of the State Department, and as it is probably the earliest record we have of a premium for Grape-culture, I doubt not it will be interesting to your readers. B. P. JOHNSON.—*State Agricultural Rooms, Albany, N. Y.*

"B. P. JOHNSON, *Sec'y State Ag'l Soc'y*—It is highly probable that the following is the earliest bounty offered for the cultivation of the Grape and the manufacture of wine, within the limits of the present State of New York. It is copied *verbatim et literatim* from a record in the office of the Secretary of State, at Albany. From its date it will be seen that the premium was offered in the first year of the English Colonial Government of New York. It is recorded in Deeds, Vol. II, page 87. FRANKLIN B. HOUGH.—*Albany, N. Y.*"

"Whereas Paul Richards an inhabitant of this Citty of New York hath made knowne unto mee his intent to plant vines at a certaine Plantation that hee hath upon Long Island, called the little ffiefe, which if it succeed, may redound very much to the future benefitt and advantage of the inhabitants within this Government; and in regard, it will require much labour and a considerable charge to provide vines and to p'pare the ground and make it fitt for production of wines; ffor an Encouragem't to the said Paul Richards in his proceedings therein, I have thought fitt to grant unto him these following priveledges (viz.)

"That all wines of the growth of such vines as the said Paul Richards shall plant, or cause to bee planted at the place aforesaid, shall bee ffree from any kind of impositions for ever if sold in grosse, and not by retaile:

"That the said Paul Richards, his heirs, executo'rs or assignes shall have the priveledge to have such wines sold by retaile in any one house in New York for the term of thirty years to come, from the time of selling of his wines, ffree from all imposts or excise:

"That every person that shall hereafter for thirty years to come, plant vines in any place within this Government, shall upon the yeares improvement pay unto the said Paul Richards, his heirs, executo'rs or assigns, five shillings for every acre so planted as an acknowledgement of his being the first undertaker and planter of vines in these parts, ffor the confirmacon of the priveledges above specified. I have hereunto put my hand and seale.

"Given at ffort James in New York this 10th day of January, 1669.

RIC. NICOLLS," (*first English Governor.*)

THE STUDY OF NATURE AND OF ART CONTRASTED.—The following passages from a recent lecture by the Hon. JOHN THOMPSON, of Poughkeepsie, on the "Beautiful in Nature and Art," are worthy of careful study. Our readers will unite with us in a high appreciation of the truthfulness and importance of the sentiments conveyed, and of the felicitous style in which they are expressed.

"Architecture and gardening being useful, as well as ornamental arts, are said not to be capable of that limitless and infinite expression of beauty which belong to the others, yet we confess to the weakness of preferring a beautiful structure on some mild declivity, surrounded by a most "living landscape," to all the paintings and statues which ever amazed or delighted mankind. What are imitations on canvass to the reality?—or what the attitudes of a Venus or Apollo, "though they live in stone and fill the air around with beauty," to the superb grace which high art may superinduce upon nature? True, the statues are expressions of humanity, and therefore higher in the scale, *artistically* considered; but they are inferior and more limited in the variety, grace, richness, and beauty appertaining to *natural* scenery embellished by art. The beauty of statuary may be highly intellectual, and even moral, but yet it is circumscribed within narrower limits and demands higher cultivation, and even art, to appreciate it. Fixed in its forms and attitudes, it has *one* expression, stamped with the last finish of precision; it has no flexibility, no changes, no variation, no life; it is but slightly suggestive, and takes no hold upon the infinite. But no pencil can catch or describe the living beauty that shimmers and glists through the

branches; that plays around the wing of the zephyr as it drinks the breath of the flowers; that lifts tower and turret into the rosy light, and bows solemnly under the old trees that wave their giant arms in the tempest, or catch the last sunbeam on their lofty crowns;—the beauty that spreads its mantle of purple and gold over the face of the evening landscape; that drapes its deep folds through the valley where shadows creep and mixes them with silver mist on the summits, where daylight lingers; that mirrors itself in the glassy wave where it watches the first glimmer of the twilight-star! These have also what painting uses and imitates—*color*—a variety and blending of features and harmony of parts. * * * * * *

"Still, if it went no further than to induce the culture of taste and sensibility, if it awakened and stimulated sentiment only, this is a wide step towards *moral* excellence, and out of which it may grow and flourish. And, in this respect, the *culture of flowers* has advantages which do not belong to the beautiful in most of the other arts. We may be captivated and absorbed by the beauty of a fine landscape, statue, or picture—by the splendor of a sunset, or the radiance of the moon or stars, and may feel the exalting and refining influence of these objects steal over the soul; but yet all this is temporary and evanescent. The beauty fades from the sky, the landscape is buried in night, the shadows steal over the picture, and the impression is gone. There is no link of connection between them and us, but the imagination and the memory. Not so with the flower! It does not refine, simply, but it holds us; it not only elevates our sensibilities, but it winds itself about our heart strings; it employs our daily thoughts—demands our daily care. It implies frailty, and we guard it; helplessness, and we assist it. We reprove nature if the storm be too rude, and lift the bowed blossoms that it may look again in the eye of the sun. It demands forethought, a sense of responsibility, a sleepless and unselfish diligence, while

'Like wearied infants on Earth's gentle breast,
In every nook our little field-flowers rest.

"Who shall say that this culture, care, and labor, is not conducive to virtue?—is not virtue's self, transferable to humanity when the exigency claims it? And yet it is so beautiful, this voiceless commune with the flowers! No harsh sound grates upon the ear, no note of complaining, no murmur of discontent, no petulance, no deception. The glossy leaves only tremble their gratitude, and the blooming roses blush their psalm of thanksgiving. And then, what silent preachers—how suggestive of *brightness*, that passes away; of *patience*, that waits and watches for the bloom; of *diligence*, that watereth when the shower is withheld and the dew is gone; of *sorrow*, from the broken stem and withered leaf; of *resignation*, for they *live* yet at the root; of *immortality*, for

'Flowers bloom again; leaves glad once more the tree;
And man, there blooms a second spring for thee.'"

ELSIE'S LETTERS.

Woodside, Waukesha, Wis., Feb. 28, 1855.

THE SWEET GUM.—In the January number of the *Horticulturist* for 1854, Mr. MEEHAN, of Philadelphia, introduces a new shade tree to the notice of American Arboriculturists, or rather he has reminded them of a worthy native whom they have forgotten to honor. It is the *Liquidamber styraciflua*. Is it the veritable Sweet Gum I loved when a child many thousand miles hence in my southern home? Yes, it must be. Can its graceful foliage be coaxed to flutter in the lake and praire winds of this stern, far northwest? Ah, I fear not. Would I might once more see the light and shadow of those glossy leaves playing in the soft air of a southern summer morning, feel its corky bark, and crush its leaves between my fingers to bring out their fragrance. Could I gather the pleasant, aromatic gum which exudes from it, and on which we children were wont to ruminate in school hours, verily if its shaft chanced to be not too broad of girth to be embraced,

I should twine my arms about it for the sake of old associations and the loved memories it recalls. I remember the "academic groves" that graced the sides of our "hill of knowledge," on which our village "temple of science" stood prominent. The Sweet Gum tree was there. At the foot of the hill a storm once rudely felled a noble and aged specimen. It lay shattered of its strength and shorn of its beauty, in the romantic glen where sprung the silvery stream at which we were wont to slake our thirst. After this downfall the glen possessed an added charm. We made houses among its branches, and practiced equestrianship on its lithe limbs, and, better than all, delighted our salivary glands with the much-loved gum. I think this must have been a specimen of rare nobility. Certainly, as I look among memory's pictures, I see its daguerreotype of extraordinary size. It stood alone, the remnant of a magnificent forest that had its birth and uprising in some far back century. Yes, I see it distinctly—fallen low from its towering beauty, its limbs crushed and broken, its roots uptorn and withering in the sun, the great cavity of fresh earth showing where it once had been. There, perched among the branches, is a little girl of seven or eight summers, and resemblance beareth she to the group about me? From the southeast to the northwest seems (on the map) but a step across, and from the child among the Liquidambers and Magnolias of the former, to her children among the Burr Oaks and Tamaracks of the latter, but the turning a page in life's history.

The memory of the fragrance which this fallen tree imparted to the neighborhood of the spring, is with me still. So perceptibly was it roused as I read Mr. MEEHAN's description, that I thought its accompanying engraving a tangible medium bearing the actual odor hither. But no, in my heart it had lingered through years and changes, and needed but a hint to leap from my memory to my senses. ELSIE.

March 12, 1855.

NORTH AND SOUTH.—"*March* 1*st*—My Daffodils, Jonquills, Buttercups, Valley Lilies, and Blue Bells, that border the garden paths, are in full bloom. Peas, Radishes, Cabbages, Lettuce, &c., are in a fine state of progress, and in another fortnight will delight our epicurean propensity. Peach, Plum, and Cherry trees are heavy with their beautiful blossoms. Through my open window comes the odor of Hyacinths and Jasmine."

So writes one from the sunny land of Georgia, whereon the sun deigneth to bestow his warm beamings, his genial favors, in greater lavishness than in this slighted region. Full three months will it be before we can tell such a tale. Three months longer we must ring changes on the winter stores which last summer's skill and forethought garnered. As for flowers, only the favored few—the possessors of conservatories and green-houses—can for some time yet delight their senses with their blossoming. Not before the last of May or first of June need we fatigue ourselves with garden making. Vastly discouraging would it seem to one of a more favored climate to go through so much toil for so short enjoyment of its fruits. They would think it hard indeed to have the earth locked up from use full half the year, vegetation sleeping, tree and shrub undecked, and the flowers in their "tiring rooms" nearly as long. What have we of the North to atone for the lack of lavish beauty, warmth, and luxury? One thing we have, the delights of winter, which to them is only a short period of damp dullness.

A few weeks previous another wrote: "I enjoyed last winter one scene of rare beauty—the first of the kind in my recollection. It had been unusually cold for a few days. One evening it commenced snowing. The moon rose in her full, her light dimly shaded however by murky clouds. The snow came gently down in great feathery flakes; not a breath disturbed the hush of nature. I seated myself in the window behind the curtain and exclaimed 'how beautiful—how beautiful!' At last I could stand it no longer, so LAVINIA and I threw our shawls about us and went out where we could enjoy it all. Up and down the garden walks we tramped, standing sometimes to drink in a scene whose parallel we might not soon see again. Off to the woods, then to the hills, down to the village below us; over the valley our eyes wandered and lingered, thus to impress ineffacibly the beautiful pictures on our memory. I dreamed of elf-land that

night. The next morning was clear and frosty beyond anything in my youthful memory. Such brilliance! my imagination, aided by descriptive readings, was tame—was nothing. The snow so softly falling had congealed on blade, and leaf, and stem, sometime scarcely changed, its feathery outline only becoming clear and crisp. Elsewhere they had melted and hung in glittering drops and icicles from limb and branch. Cousin, how can I tell it to you! I absolutely have no language! I was enchanted and excited, and laughed and cried in a breath. The dazzling, glancing rays of early sunlight were reflected back and forth from bright points, glassy smoothnesses, and through beautiful prisms, ten thousand-thousand times, till the very air seemed to dance and glisten. Everything which the sunbeam touched scintillated and gleamed. Diamond sparks glittered, and gold splinters spangled and flashed up wherever the dancing rays quivered. The copse beyond the lawn, whose shadowy depths are impenetrable at this distance, was lighted till we could see through it. A marble floor showed pure and fair between the dark uprising shafts. The bare boughs above gleamed as if a hundred lamps had lit up their dimness. Ah, those aisles and columns, frescoed arches and groins of nature's own handiwork, with which no art might vie! I would tell you of little flowers peeping through the snow, chilled and icy—of Monthly Roses and Chrysanthemums frozen and stiff, and a hundred other things, but you will think me intoxicated, and verily I was. In a few hours this fairy splendor had vanished, and everything looked black, withered and limpsy, and the ground was muddy and mucky, and people with sublunary ideas began to query and speculate on the fate of the fruit-buds. I thought I could willingly forego Peaches and Plums one year."

Ah, cousin, such scenes are common here, and they are not always so evanescent as to be quickly chased away by the approach of Sol. Then, too, we have the deep snows—the drifted snows—in curl-crested waves and high banks, that you never have seen, and the wild borean winds whose music your ears never greeted.

Such homes as these cold winters make!—the long bright evenings, friendly circles, social joys, household pleasures, cozy comforts, warning affections, are the more enjoyed when so long and closely housed. Pursuits and occupations grow to completeness, uninterrupted by the enticing facinations of out-door summer life. How much easier when bound within the circle of our own door-sills to concentrate the thoughts and fix them on reading and study. What a nice time for building castles, and laying plans, and projecting great designs, that may, perchance, melt away with the snow and ice. How contentedly we can stitch away hour after hour with work-baskets beside us, when no birds, blossoms, or breezes are calling and coaxing us out.

Does not this stern, cold climate tend to a greater development of industry and energy? In the short summer one must work busily and briskly, and learn to make the most of shining days, soft air, and genial rays. There is a happiness in planning and storing up comfort and enjoyment for the coming winter—the anticipations which are pretty sure to prove realities. There is bravery and energy in daring the cold piercing winds, the driving storms when needs be, which no life in soft airs and sunshine can call forth.

Thus you see I am too philosophical to look back upon the beautiful home of my childhood with longing eyes, but readily content myself in this busy, enterprising North-west. ELSIE.

Notices of Books, Pamphlets, &c.

PRACTICAL LANDSCAPE GARDENING, with reference to the Improvement of Rural Residences, giving the general Principles of the Art, with full Directions for Planting Shade Trees, Shrubbery and Flowers, and Laying out Grounds. By G. M. KERN. Cincinnati: MOORE, WILSTACH, KEYS & Co. 1855.

Our first impression on opening this book, is that the publishers have done *their* part *well*—so well, indeed, as to be quite equal to the best productions of our largest cities. Mr. KERN did well to put his book in the hands of these gentlemen, and we trust they will have a profitable sale, if for no other reason than that they have displayed such commendable taste. The volume contains 328 pages—about as large as *Elliot's Fruit Book*, or *The Fruit Garden*—is illustrated with numerous well executed wood cuts, and dedicated to A. H. ERNST, Esq., a gentleman well known to horticultural readers, and who well deserves the honor intended him by Mr. KERN.

The author is, judging from his book, a man of cultivated mind, and one who has had considerable experience as a professional landscape gardener. We cannot give his work an unqualified recommendation, but we can honestly say that gentlemen who are conducting improvements on their own grounds, without having had experience, will find much in it that will be of service to them. The *practical* part, especially, abounds with useful directions concerning the planting and arrangement of trees, making and keeping lawns, grading and excavating, making roads and walks, lakes and ponds, rock work, &c. This the backbone of the work, and comprises about one hundred pages, or less than one-third of the whole.

We will point out what appears to us a few defects which may hereafter be remedied. In the first place, the introduction is quite too lengthy, and too prominent for a small practical work like this. It occupies some *thirty pages*, instead of simply stating the objects and plan of the book as briefly as possible. Then sixty-one pages are devoted to the vegetable garden, which should not have been treated of at all, because "landscape gardening" is one thing and "kitchen gardening" another. This is a very common and very grave error in book-making now-a-days. A pocket volume must be an encyclopedia. All that the treatise on landscape gardening has to do with the kitchen garden is to provide or point out the most suitable place for it. But while these ninety-one pages are bestowed upon matters that might and *should* have been omitted, we find no description of ornamental trees and shrubs, such as all inexperienced planters are crying out for more than for aught else. Mr. KERN gives some eighteen pages of bare names of trees and shrubs, good, bad, and indifferent, without discrimination. Many of them are mere rubbish, which no man in his senses would plant unless in an arboretum, where everything is welcome, while hundreds of the finest things are not mentioned. This is a great error. The "limits" of the volume is no excuse, for we have shown, or can show, that one hudred pages have been thrown away or mis-appropriated.

Nor is this all. We find after reading and examining the book attentively, that the division into two parts—"Principles of the Art," and "Practical Operations,"—though necessary and proper in a larger and more comprehensive volume, does not work well in this. It has led to an unnecessary division of the same subject in many instances, and to considerable repetition of words as well as ideas. For instance, water, roads, and walks, rock work, lawn, and all these matters, are treated of in the first part and again in the second; and we believe no man who will read the book will lay it down without wishing that all the author's ideas on each of these subjects had been given in one place. We cannot see

but that the remarks in the one part are just as practical as those in the other; the division is a mere cumbrous formality. So we find "plantation," "outline," "composition," "groves," &c., treated separately in chapters, while one chapter, under the head of *Plantation*, should have embraced all the others.

If space permitted at present, we should speak of the illstrations. Many of them appear to us faulty. The worst of all is, we think, the "artificial rock work," which forms the frontispiece. The castle seems to be in a very awkward and perilous situation, and the trees growing out of the side of the rock have not the aspect or forms of trees which nature produces in such situations. We cannot imagine how Mr. KERN's good taste could plant this production in such a conspicuous place. And the illustration called "the pleasure ground," seems to be planted exclusively with evergreens, which gives it a very monotonous appearance. We do not believe that Mr. KERN would carry out such a design in practice.

Now if Mr. KERN wishes to make his book really popular and useful, and true to its character, he will consider what we have said, not as being prompted by any dictatorial feelings, but by a hearty desire to see his book improved and made serviceable to the public. We hail such books with real pleasure, even if not what they should be, and we shall rejoice to see Mr. KERN's volume find its way into the hands of thousands who have not before opened a book on Landsape Gardening.

SECOND ANNUAL REPORT OF THE BEADFORD COUNTY (PENN.) AGRICULTURAL SOCIETY, FOR 1854.

This is a flourishing Society, but the severe drouth of last summer was a serious detriment to the fall exhibition. As an evidence of the taste and spirit which prevail in that region, we clip the following from the report of the Executive Committee.

"The Court room, under the skillful and tasteful hands of the young ladies of Towanda, was most beautifully decorated with evergreens and flowers. In the center of the room was a beautiful Floral Temple, raised upon a mound of moss. From the mouth of a rich Horn of Plenty poured luscious fruits and beautiful flowers, in every variety, down the green slope of the mound. Several cages of beautiful birds, furnished for the occasion by Mr. JAMES NEVINS, of Towanda, and hidden among the winding evergreens, poured forth strains of sweet song, lending a most cheerful and pleasureable effect to the already delightful scene. The spacious room, during the evening, was brilliantly illuminated, presenting to the beholder a beautifully varied and gorgeous picture. Immediately in front of the Judge's desk, and near the entrance to the room, were long tables richly laden with the most costly productions of ingenuity, skill, and labor. Here was seen the handiwork of the fair women of our county, in every variety of form and grade of workmanship — the most delicate and richly wrought needlework, requiring months of assiduous application and labor, with the no less surprisingly beautiful products of the spinning-wheel and loom. Here, too, was seen in tempting profusion, breads of every variety, from wheat of alabastar whiteness, to the rich and inviting brown loaf of the rye; cakes, preserved fruits, raspberry and other vinegars, pickles, preserved meats, soaps, and numerous other articles of the household department — all demonstrating the superior skill of the fair contestants. A large number of paintings and drawings, some of them by young ladies of this county, were on exhibition, many of them evincing superior artistic skill, and all deserving praise. A beautiful sample of cocoons and manufactured silk was exhibited by Mrs. ADELAIDE DELPEUCH, of Sheshequin, deserving the highest regard of the Committee. The articles on exhibition in the Ladies' department, considerably exceeded in number and variety those of last year, especially those of the more useful character. The large number of articles in this department, compels the Committee to forego their desire to give them a more detailed notice."

THE PRACTICAL LAND DRAINER, by B. MUNN, Landscape Gardener, New York. New York: C. M. SAXTON. 1855.

Mr. MUNN's treatise has just been placed on our table as the closing pages of this number go to press; so we have no space to say much about it. We have given it a hasty perusal, and regard it as a timely and useful work. Mr. MUNN, as a landscape gardener, has had opportunities enough to acquire experience on the subject, and besides he has consulted the best English authorities who have treated draining as a science. The information here brought together in a small volume could not otherwise be reached without referring to a library of books and papers. Draining is but beginning to receive attention in this country. Every man who cultivates either a farm or a garden, should know something of it. Mr. MUNN's book must be eagerly sought for. It will no doubt be found at all the bookstores. Messrs. SAXTON & Co. have sent it out in very creditable style.

OUR NATIVE FOREST TREES.—The attention that is now paid to the subject of our native forest trees warrants the propriety of keeping before the public the importance of *Michaux & Nuttal's Sylva of North American Trees*. The work has been several times noticed in this journal, but it may not be amiss to insert the following, which we clip from a Cleveland paper, from the pen of that distinguished naturalist, Dr. KIRTLAND:

"NORTH AMERICAN SYLVA.—The recent issuing of a second and improved edition of *Michaux & Nuttal's Sylva Americana* is an evidence that public taste in the United States is advancing in the right direction. Demands for it are coming from every part of the Union. This is all right; for it can hardly be excelled for beauty and usefulness, by any other publication. By its aid any intelligent person can easily render himself familiar with the history and habits of our forest trees. It is equally valuable for the farmer, arboriculturist, botanist, and individual of taste. A place should be assigned for it on the center-table of every well regulated family, in lieu of the trifling trash which too frequently abounds. It should be found in every public and extensive private library.

"The Managers of State and County Agricultural Fairs would diffuse much greater benefit by offering it as one of their main premiums than by bestowing their thin and alloyed stuff called plate. JARED P. KIRTLAND.

RECEIVED.—*A Descriptive Catalogue (with priced list) of Fruit and Ornamental Trees, Garden Shrubs, Climbers, Roses, Grape Vines, Currants, and Raspberries: Green-House and Parlor Pot Plants, Herbaceous Hardy Flowering Roots, Garden and Flower Seeds, etc., etc. Raised, cultivated, and for sale, at the Green-House, Cottage Garden and Nurseries, by* JOHN ROGERS, *Nurseryman, Kittery, Maine.*

Answers to Correspondents.

THE NANNYBERRY.—We have received the following communications in relation to the "Nanny-berry," inquired about by a "New Jersey Subscriber," in our April number:

"In the April number of the *Horticulturist*, a subscriber inquires about a shrub named Nanny-berry." *Viburnum lentago* is called by EATON, "Sheepberry," and goes by the popular name of "Nannyplums," from the resemblance of its fruit to this product of the farm-yard. I presume, from the resemblance of names, this is the plant referred to. *Kalmia augustifolia* is called Sheep Laurel, and is a low shrub everywhere, from one to two feet high.

The former grows from ten to fifteen feet in height, bears large clusters of small white flowers,

and small black fruit covered with a thick bloom. The fruit has a flat seed, is mild, mucilagenous and sweet, and particularly grateful to children. The fine glossy foliage, and abundant dark fruit, renders the plant quite ornamental; and although I have never tried transplanting them, yet I have some marked for the purpose and presume they will succeed well, as the High Cranberry and Snowball belong to the same genus. S. S. Goul.—*Cream Hill, West Cornwall, Vt.*"

"The Nannyberry, or *Viburnum lentago*, is a native species, and is found abundantly in this State, New Jersey, and Virginia. It is a beautiful shrub, rising to the height of ten or twelve feet. The flowers are produced in terminal cymes, during the month of June, and diffuse a very agreeable odor. It is also very ornamental in fruit. The berries are deep blue, and hang among the curled leaves, which assume the beautiful hues of autumn. The berries, after a sharp frost, are pleasant to the taste, and somewhat mucilagenous. It is one of our handsomest native shrubs, and should be in every collection. F. W. P.—*Dobb's Ferry, N. Y.*"

Conservatories.—A correspondent of the *Horticulturist* inquires, if conservatories or green-houses attached to dwellings can be made successful. I can answer affirmatively, as I have had the management of one for many years so situated. This green-house is attached to the dwelling in the angle formed by the main house and back building, facing south, with the parlor windows and hall door opening into it. The roof is of tin, supported by pillars, in which the sash are made to fit, so that they may be removed in summer, leaving an open piazza. There are outside shutters. The floor is of brick, which enables you to use water freely, and retains a proper degree of moisture throughout the house. It is heated by a small coal-stove of cast-iron, which consumes about a quarter of a ton of coal during the winter. Hardy green-house plants do perfectly well here, such as Lemon and Orange trees, Laurustinus, Myrtle, Sweet Bay, Jasmins, Camellias, Rhododendrons, Pelargoniums, Coronellas, Primulas, Oxalis, Violets, Wall Flowers, and Stock Gillies. Many of the annuals, also will bloom beautifully in the spring. I call these plants hardy, as I have had, occasionally, two or three degrees of frost in the house without injury. I consider a fire only necessary when the thermometer is likely to be below 20° out of doors. I have never perceived any dampness or unhealthiness to proceed from this house. On the contrary, it is delightful to see from the parlor windows, in cold winter weather, the Lemon trees loaded with their beautiful golden fruit, and rich dark-green leaves; and then you have the odor of the Laurustinus, Mignonette, Violets, Stock Gillies, and other sweet flowers, diffused through your dwelling.

This is, I think, the cheapest and most convenient way of having a green-house attached to your dwelling. The expense may, of course, be increased indefinitely and without any ill effects, either from dampness or unhealthiness. H. N. Johnson.—*Germantown, Pa.*

Fruits for Maryland.—Having but recently moved to the country, I have been anxiously consulting authorities in regard to stocking my place with choice fruit of all the desirable kinds. On reading your leading article in the March number, which professes to give the kinds of fruits best adapted to each of the several States in the Union, and which statement is made up from "reports from the most northern limits of the United States to the shores of the Pacific," how is it that there *is not one single kind of any of the fruits named suitable for the State of Maryland?*

Is it considered that fruits which suit the climate of Pennsylvania and Delaware, or those which suit the climate of Virginia, will do for Maryland? Or have you *no reports* from Maryland? Has the American Pomological Society no representative from Maryland?

I ask these questions purely for information upon a subject of great importance to me at the present moment, for I should like to get those kinds of fruits best adapted to this State, and avoid the error of bad selections which my own judgment might lead to. John C. Holland.—*Catonsville, Md.*

We have been unable to find any report on the varieties of fruits cultivated in Maryland, but it is safe to assume that such as are recommended by Delaware, Southern Pennsylvania, and Virginia, will succeed there. We hope to see a full report from Maryland, presented at the next session of the Pomological Society. Kentucky is behind in this respect, too, for although we have had some valuable contributions on the climate, &c., of that State, from Mr. Lawrence Young, Chairman of the State Committee, we have had no report on varieties of fruits. We know many gentlemen in that State fully competent to make a valuable report, and we trust they will do it.

(C. B., Princeton, Ill.) ROSES.—For hardy perpetual-blooming *pillar* Roses, we would recommend you the following rapid growers: *Barrone Prevost, Pius IX, Robert Burns, Caroline de Sansal, Jacquez Lafitte,* and *Mrs. Elliot.* The April number was made up before your letter reached us.

WILLOWS.—Ever since Mr. CHARLES DOWNING's excellent article upon Willows and Willow Culture appeared in the *Horticulturist* (April number, p. 172,) I have been looking for another from him on the growing and management of Willow fence and screens. I think he will be doing a great favor to many of your readers by so doing. I have been contemplating setting out Willows and Lombardy Poplars, for fence and screens, the following summer, and wish to know the best plan to manage them. H. H.—*Winchester Centre, Conn.*

We hope Mr. DOWNING, or some one else who has experience in such matters, will give us a few hints.

I send you, per express, a small box of Apples known here as the *Middle Apple.* The fruit was brought to this State, some time since, from New York, (I think from either Herkimer or Westchester county,) by Col. JAMES B. HUNT. I have never seen the name in any catalogue, though I presume you have it under some other name. You will oblige me by stating what you know about it, if anything, and also your opinion of the Apple. It is a great favorite in this section. The specimens sent are medium size. A. W. HOVEY.—*Pontiac, Mich.*

A very nice, mild, juicy Apple, considerably cultivated, and highly esteemed, in Herkimer county, where it originated. Mr. CHAS. SPINNER, of Herkimer, informs us that it was called "Middle Apple," from having been found on the line between two adjoining farms. He says, also, that it usually commands a higher price in their markets than any other variety.

RED SPIDER REMEDY.—A subscriber, with a small parlor conservatory, (say 9 ft. by 6 ft.) protected from frost by double glass, understands smoking down the Green Fly, &c., asks (after searching in vain for some antidote) for a remedy for the Red Spider, which has become a formidable enemy to some fine Roses, giving them the appearance of injury by fire. The plants were in a fine, healthy condition when placed in the house last autumn, which was thoroughly painted outside and inside, during the summer, in order to extirpate the Spider, if possible, which had made its appearance there the previous winter.

Any information, through the columns of the *Horticulturist,* may prove valuable to others, as well as to your INQUIRER.

Sulphur is the great enemy of the Red Spider, and if you make a wash of from 1½ oz. to 2 oz. of sulphur to a gallon of water, and syringe your plants on both the upper and under sides of the leaves daily with it, you will soon get rid of the Red Spider. The sulphur will mix better with the water if made into a paste with soft soap.

Horticultural Societies, &c.

BROOKLYN HORTICULTURAL SOCIETY.—The most delightful indications of approaching spring, after the terribly severe winter, we have yet seen, was the gay exhibition of the Brooklyn Horticultural Society, which closed last evening, the 12th of April. It was a decided hit, and never have we seen an exhibition give so much gratification. Strictly speaking, some of the former exhibitions have excelled this in rare specimen plants in perfection of bloom, but in quantity and gay colors, this excelled all others. The standard varieties of Azaleas, Roses, Geraniums, &c., together with a few really fine new seedlings, and the thousands of Cinerarias, Carnations, Verbenas, Fuchsias, Stock-Gillies, Hyacinths, &c., made the display very brilliant and attractive. Coming, too, just on the heel of snow storms, with spring lingering in the lap of winter, full eighteen or twenty days later than usual, it called forth—particularly on the part of the ladies—the strongest expressions of delight.

The rooms during the evening were crowded to their utmost capacity, and before the visitors separated, they were addressed most eloquently and appropriately by the Rev. Dr. VINTON, of that city. His voice and articulation was so good that all in the room could hear him distinctly, and the address elicited frequent and loud applause. He knew not why he was selected as

speaker, but when he learned that the evening was to inaugurate the Hunt Botanical Garden, of Brooklyn, he felt that none of her sons might withhold their voice or influence. Complimentary reference was made to THOMAS HUNT, who so generously donated $50,000 and one-third of the land, or five acres, and WM. C. LANGLEY and JAMES KENT, who also generously donated the balance, ten acres, of the land, with cash subscriptions of $10,000; others had subscribed $30,000, and the Legislature had granted them a charter. The ground chosen is just south of Greenwood cemetery, overlooking the Bay, and is every way desirable.

The address referred, in an interesting manner, to the Garden of Eden, which God planted—the Garden of Gethsemane, where the Saviour groaned in agony—and the Garden in the paradise of God, where stands the Tree of Life. The noble men had done well in thus consecrating a portion of their estates to such a purpose—and he used the sacred term, *consecrating*, deliberately, for he held it was an appropriate and *pious* work to which it was devoted, and they earned the encomium of benefactors of their country. The garden is the last thing a man makes, and a conservatory of flowers is usually the last crowning act of a garden. God designs in flowers something beyond their mere nomenclature, and yet let us honor the man who can marshal them all by their names, as did our forefather, ADAM; and he who adds new varieties, or improves old kinds of flowers and vegetables, may rank as a benefactor.

The moral influence of flowers was then eloquently dwelt upon, where not only the gigantic plant helps to educate man, but the tiniest flowers are sermons.

The address closed with a beautiful tribute to the lamented DOWNING.

The fine collection of plants from the green-houses of Wm. C. Langley, received the award of the first premium; J. H. Prentice, second. J. E. Ranch, for the best two specimens; and the four, to Edwin Hoyt. Best Azaleas, A. Fraser, gardener to D. Perkins. Best Pelargoniums, George Hamlyn, gardener to W. C. Langley. Best Roses, to J. E. Ranch; second best, to James Wier. Best hot-house and green-house plants, to A. Gordon, gardener to Edwin Hoyt. Best Fuchsias, to Wm. Poynter. Best Cinerarias, to T. Templeton. Best Carnations and Verbenas, to J. E. Ranch. Best Stock-Gillies, and best twelve Roses, to James Wier. Best Hyacinths, to J. De Graw. Best hand bouquet, to W. & J. Parks. Best basket, to Wm. Poynter. Best collection of Roses in bloom, to J. W. Burgess. Best Asparagus, to G. Hamlyn. Best Lettuce and Mushrooms, to E. Decker.

The spirited movements of the friends of horticulture in Brooklyn, is exciting to action the New York horticulturists. The law providing for the large Central Park, has an article permitting a certain portion to be devoted to a large fine garden, and it is hoped that steps will soon be taken to secure so desirable an object, and with the stimulus of a healthful and courteous competition on the part of New York and Brooklyn, it is believed something very fine can be accomplished. R. G. P.

HARTFORD COUNTY (CONN.) HORTICULTURAL SOCIETY.—The annual meeting of this Society was held on Saturday, April 4th, and the following persons were chosen as officers for the ensuing year:

WILLIAM W. TURNER, *President.* JOHN M. NILES, DR. JOHN S. BUTLER, HENRY W. TERRY, Hartford; HENRY MYGATT, Farmington; CHARLES L. PORTER, East Hartford; NOAH W. STANLEY, New Britain; NORMAN PORTER, Berlin; E. A. HOLCOMB, Granby; SALMON LYMAN, Manchester; S. D. CASE, Canton; and DR. H. A. GRANT, Enfield, *Vice Presidents.* DR. GURDON W. RUSSELL, *Recording Secretary.* THOMAS R. DUTTON, *Corresponding Secretary.* PETER D. STILLMAN, *Treasurer.* H. L. BIDWELL, *Auditor.*

Standing Committee.—Joseph Winship, George Beach, Jr., John H. Goodwin, H. L. Bidwell, Henry Affleck, Daniel S. Dewey, Dr. George B. Hawley, George Affleck, Charles T. Webster, H. D. Wells, Wm. F. Tuttle, E. A. Whiting.

FRUIT GROWER'S SOCIETY OF WESTERN NEW YORK.—The following are the officers of this Society for the present term:

President—JOHN J. THOMAS, of Macedon. *Vice Presidents*—LEWIS F. ALLEN, of Buffalo; H. P. NORTON, of Brockport; E. W. LEAVENWORTH, of Syracuse. *Secretary*—JOHN B. EATON, of Buffalo. *Treasurer*—WILLIAM P. TOWNSEND, of Lockport. *Executive Committee*—P. BARRY and H. E. HOOKER, of Rochester; H. L. SUYDAM, of Geneva; J. C. HANCHETT, of Syracuse; P. R. FREOFF, of Auburn.

PENNSYLVANIA HORTICULTURAL SOCIETY.—The stated meeting of this association was held on the evening of the 17th April, in Concert Hall, Philadelphia. R. BUIST, Vice President in the Chair. The exhibition was remarkable for the richness, beauty, and variety of the plants and cut flowers, in the many contributions shown, and afforded much gratification to the numerous members and visitors in attendance.

The following resolutions were submitted by Mr. BUIST, and unanimously adopted by the Society:

Resolved, That this Society has learned with the deepest sorrow, the death of Thomas Hancock, who departed this life (from an attack of pneumonia) at his residence, near Burlington, New Jersey, on the 21st ult., in the 54th year of his age.

Resolved, That in acknowledging the sudden bereavement with which this Society has been visited, it also expresses its keen appreciation of the severe loss the various institutions with which the deceased was connected in his native State and elsewhere; and to the promotion of whose aims, he ever brought a rare practical intelligence, an ardent zeal, and sound judgment.

Resolved, That whilst the life of so useful a citizen might be fittingly presented as an example worthy of imitation on the part of a large body of surviving friends, the void which his death has occasioned cannot be more intensely experienced than by the members of this Society, with whom he co-operated for so long a period in the discharge of official duties, (being at the time of his death a member of no less than four of its most important Committees).

Resolved, That although this Society is far from sanctioning the publication of fulsome memorials of *living* men, yet it deems a sketch of the life, character, and labors of its departed member, a proper subject for the pages of those journals, to the interest of which he had so often contributed; and trusts that the principal one in our land will favor its readers with such other notice of this distinguished horticulturist as may be due to his memory.

Resolved, That this Society especially condoles with the immediate family of Mr. Hancock, in the sad dispensation which now afflicts them, but hopes, nevertheless, that in viewing the blameless career of their honored head, they will find much to comfort and solace them in their distress.

Resolved, That copies of these resolutions, signed by the President and Secretary, be transmitted to Mrs. Hancock, and to the publishers of such of the horticultural journals of the country as are received at the rooms of the Society.

DUANE'S PURPLE.